NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

JOB SATISFACTION, ORGANIZATION
COMMITMENT AND RETENTION
IN THE
NOAA CORPS

by

Patrick J. Rutten

December 1986

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Thesis
R9297
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CURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

REPORT SECURITY CLASSIFICATION (UNCLASSIFIED)	1b RESTRICTIVE MARKINGS
SECURITY CLASSIFICATION AUTHORITY	3 DISTRIBUTION / AVAILABILITY OF REPORT Approved for public release; Distribution is unlimited
DECLASSIFICATION / DOWNGRADING SCHEDULE	
PERFORMING ORGANIZATION REPORT NUMBER(S)	5 MONITORING ORGANIZATION REPORT NUMBER(S)
NAME OF PERFORMING ORGANIZATION: Naval Postgraduate School 6b OFFICE SYMBOL (If applicable): 54	7a NAME OF MONITORING ORGANIZATION Naval Postgraduate School
ADDRESS (City, State, and ZIP Code) onterey, California 93943-5000	7b ADDRESS (City, State, and ZIP Code) Monterey, California 93943-5000
NAME OF FUNDING / SPONSORING ORGANIZATION 8b OFFICE SYMBOL (If applicable)	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
ADDRESS (City, State, and ZIP Code)	10 SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO / PROJECT NO / TASK NO / WORK UNIT ACCESSION NO

TITLE (Include Security Classification)

ob Satisfaction, Organization Commitment, and Retention in the NOAA Corps

PERSONAL AUTHOR(S)
utten, Patrick J.

TYPE OF REPORT	13b TIME COVERED	14 DATE OF REPORT (Year Month Day)	15 PAGE COUNT
asters Thesis	FROM _____ TO _____	1986 December	107

SUPPLEMENTARY NOTATION

COSATI CODES			18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	Job Satisfaction, Commitment, Motivation, Retention, Surveys

ABSTRACT (Continue on reverse if necessary and identify by block number)

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Low job satisfaction and poor retention were found in grades O-1 and O-2. Moderate job satisfaction was indicated by mid-grade officers. Officers in grades O-3 (40%) and O-4 (34%) plan to retire with 20 years of service.

The majority of officers expressed low satisfaction in the areas of communication and feedback. Promotions are a major concern for officers in the grades of O-1 through O-5. The majority of officers enjoy their work and plan to make a career in the Corps. Recommendations to improve job satisfaction, motivation, commitment, and retention are presented.

DISTRIBUTION / AVAILABILITY OF ABSTRACT	21 ABSTRACT SECURITY CLASSIFICATION
XX UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS	(UNCLASSIFIED)
NAME OF RESPONSIBLE INDIVIDUAL arson K. Eovang	22b TELEPHONE (Include Area Code): (408) 646-2756 22c OFFICE SYMBOL: 54

FORM 1473, 84 MAR — 83 APR edition may be used until exhausted. All other editions are obsolete.

SECURITY CLASSIFICATION OF THIS PAGE

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Job Satisfaction, Organization Commitment and Retention in the NOAA Corps

by

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Lieutenant, NOAA Corps
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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
December 1986

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Low job satisfaction and poor retention were found in grades O-1 and O-2. Moderate job satisfaction was indicated by mid-grade officers. Officers in grades O-3 (40%) and O-4 (34%) plan to retire with 20 years of service.

The majority of officers expressed low satisfaction in the areas of communication and feedback. Promotions are a major concern for officers in the grades of O-1 through O-5. The majority of officers enjoy their work, despite problematic areas, and plan to make a career in the Corps. Recommendations to improve job satisfaction, motivation, commitment, and retention are presented.

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ACKNOWLEDGEMENTS

I would like to thank all the NOAA Corps officers who took time to respond to the **NOAA Corps Career Outlook Survey.** Without their interest and concern about the future direction of the NOAA Corps, the success of this thesis would not have been possible.

I would also like to thank Captain Walter S. Simmons, NOAA, Chief, Commissioned Personnel Division, for his support and endorsement of this thesis, and Captain Glen R. Schaefer, NOAA, NOAA Liaison Officer and Commander Arthur N. Flior, NOAA, Chief, Program Planning, Liaison, and Training for their logistical support in conducting the survey.

Lastly, I would like to thank my wife Nancy, for her constant support during my studies at the Naval Postgraduate School, and during the preparation of this thesis.

I. INTRODUCTION

The United States Coast and Geodetic Survey (USC&GS) commissioned officer corps was established in 1917 to provide the United States continuous field operations in the areas of charting and mapping. Since 1917, the Corps has experienced many phases of development and agency direction with an increasing scope of responsibilities. This was seen in the reorganization of the USC&GS Corps into the Environmental Science Services Administration (ESSA) Corps in 1965 and into the National Oceanic Atmospheric Administration (NOAA) Corps on October 3, 1970. as a non-military, uniformed service in the Department of Commerce. The duties and responsibilities of the NOAA Corps are much more diverse today than in the days of USC&GS geodetic and hydrographic operations. The September 1, 1970. edition of the NOAA Corps Bulletin states

> The mission of the NOAA Corps is to provide officers technically competent to assume positions of leadership in the projects and programs of NOAA. Members of a Uniformed Service, they serve as officers of the Department of Commerce or as military officers, if transferred to the Armed Services during times of emergency. Discipline and flexibility are inherent in the Corps personnel system. NOAA officers are trained for positions of leadership and command in the operation of ships and aircraft; in the conduct of field projects on land, at and under the sea, and in the air; in the management of NOAA observational and support facilities; as members or leaders of research efforts; and in the management of various organizational elements throughout NOAA.

As the complexity of the work has expanded so has the need to recruit and retain qualified individuals, in all scientific disciplines to fulfill the NOAA Corps mission. For any organization to retain personnel in today's workforce requires that the organization develop personnel management attitudes and practices that change with the times. Management needs to recognize that in the 1980's, employees desire and expect a job to be personally rewarding. The experience of work clearly presents greater challenges for management to deal with. And for the benefit of the organization it is essential for organizational effectiveness and efficiency, to determine what the organization can provide to meet employees needs and expectations, to maximize job satisfaction, increase career commitment, and enhance the productivity of the organization.

The first study done to examine career satisfaction was conducted in 1955 and published in August 1955 entitled, **U.S. Department of Commerce Coast and Geodetic Survey Committee on Opportunities in Commissioned Service.** Essentially this study focused on factors concerning the job but little, if any, attention was focused on the factors concerning the needs of the officer. The second attempt to identify what motivates an officer toward organizational goals was a study undertaken in 1969 and published in March 1970 entitled, **Science and Service: A Study of Career Motivation in the ESSA Commissioned Corps.** This study was done just prior to the reorganization of the ESSA Corps into the NOAA Corps. It identified attitudes and feelings of officers who were experiencing the turmoil an agency in transition experiences. Most of all, it was the first attempt by NOAA Corps management to recognize the value of identifying specific personnel management issues affecting the attitudes of the officer corps.

A. OBJECTIVES

The objective of this thesis is to assess where the NOAA Corps stands today in terms of officer job satisfaction and commitment to a career in the NOAA Corps, based on a survey administered to all active duty NOAA Corps officers. Specifically, this thesis describes responses to organizational and job related questions derived from need-satisfaction and commitment theory. Based on these responses and analysis, specific factors have been identified that encourage or discourage an individual to make a commitment to a 20-year career in the NOAA Corps. Where applicable, comparisons have been made with the ESSA Corps study published in 1970.

B. FOCAL RESEARCH QUESTIONS

The focal issues of this thesis are:

- If promotion and rank are important as extrinsic rewards in a uniformed service, why have very few officers left the NOAA Corps, given a depressed rate of promotion?
- What, if anything, has changed in the environment and culture of the NOAA Corps that has created a stable personnel system, and is stability beneficial to the NOAA Corps?
- Given that promotion ceilings and pay are fixed, what motivators and rewards can NOAA Corps management utilize that effectively recognize individual performance?
- What future personnel and staffing problems may exist if a large percentage of midlevel officers retire at 20 years of service?

C. SCOPE, LIMITATIONS AND ASSUMPTIONS

The scope of this thesis is limited to the analysis, discussion, and recommendations to personnel management issues focused on job satisfaction and career commitment. The limitation of taking this approach precludes taking a total system approach of looking at the NOAA Corps; i.e., personnel management is only one aspect of managing the NOAA Corps. Clearly, NOAA Corps senior managers must also deal with external and internal influences and processes that are beyond the scope of this study. Also, while surveys are an effective and efficient means to gather data, they are limited in their ability of gathering full information and are not always the most accurate predictor of job satisfaction and career commitment. A survey was utilized for this thesis because it was the most efficient means of gathering data given time and resource limitations.

An assumption made concerning this thesis is that growth of the NOAA Corps will continue to be minimal for the foreseeable future. Given this assumption, predictions concerning retention in the NOAA Corps should be valid for at least 5 years. Based on this, the attitudes and feelings of this survey as reported, should not change significantly over this same time period. Additionally, given the high response rate to the survey (85%), the data and information provided are highly representative of all ranks in the NOAA Corps.

D. HISTORY OF GROWTH

The Corps had a history of slow steady growth until the early 1960's. From 1961 to 1969, the Corps on board strength grew 34%. With the reorganization into the NOAA Corps in 1970, the recruitment of women in 1971, and the establishment of rapid promotion rates to motivate retention, the NOAA Corps continued to grow, but at a slower annual rate which peaked in 1977. For the period of 1970 to 1977, on board strength increased by 20% and since 1977 has changed imperceptibly.

The stabilization of growth in the NOAA Corps was precipitated by events which occured in the early 1970's. The first event was the Federal Government wage-price freeze from August 1971 to November 13, 1971. During this period promotions were not allowed by law. The second event was the Federal Government budget reductions which began in January 1973. The result of this action was that promotions were frozen for the third quarter of FY 1973. Budgeting limitations, but more importantly government-wide personnel reductions and ceilings continued into FY 1974. The

September 1, 1973, NOAA Corps Bulletin first indicated the personnel reductions when authorized strength was reduced from 358 to 347 officers. The bulletin specifically mentioned that the grades of Lieutenant (junior grade) (O-2) and Commander (0-5) would experience delays due to this reduction. The next set back in the growth of the NOAA Corps was a statement published in the August 1, 1974, NOAA Corps Bulletin that President Nixon was seeking a cut of $5 billion and 40,000 people from the Federal budget and payroll. In FY 1975 the NOAA Corps was allowed an increase in strength from 358 to 388 officers plus 2 rear admirals (upper half) as was published in the April 1, 1976, NOAA Corps Bulletin. This period was unique in the history of the NOAA Corps in that there were actually vacancies in the grades of O-1 through O-4 that could not be filled. This situation existed because vacancies in the grade of O-6 were utilized to promote O-5's. And at that time, legally only 318 officers could serve in grades above O-1. Hence, the NOAA Corps was top loaded at the grades of O-5 and O-6, while promotions at the lower grades were slowed down. The end result of this period of growth was that O-4's and O-5's, as a group, expanded from 24% of all NOAA Corps officers in 1969 to 34% of all NOAA Corps officers in 1976. As of October 1, 1985, this group comprises 44% of all NOAA Corps officers.

To demonstrate the growth of the NOAA Corps, Figure 1.1 illustrates onboard strength (end of year figure) for 1961 to 1986 (projected). As Figure 1.1 indicates, it is projected that the NOAA Corps will be operating at nearly its full authorized strength of 405 for the first time in many years. But as the preceding section has documented most of the present day promotion delays are the result of promoting officers in the mid 1970's under the 1972 policy (Table 1).

Past promotions have had the effect of top-loading the NOAA Corps. With almost 0% attrition from the early 1970's year class of officers, these officers are currently the O-5's and O-6's today.

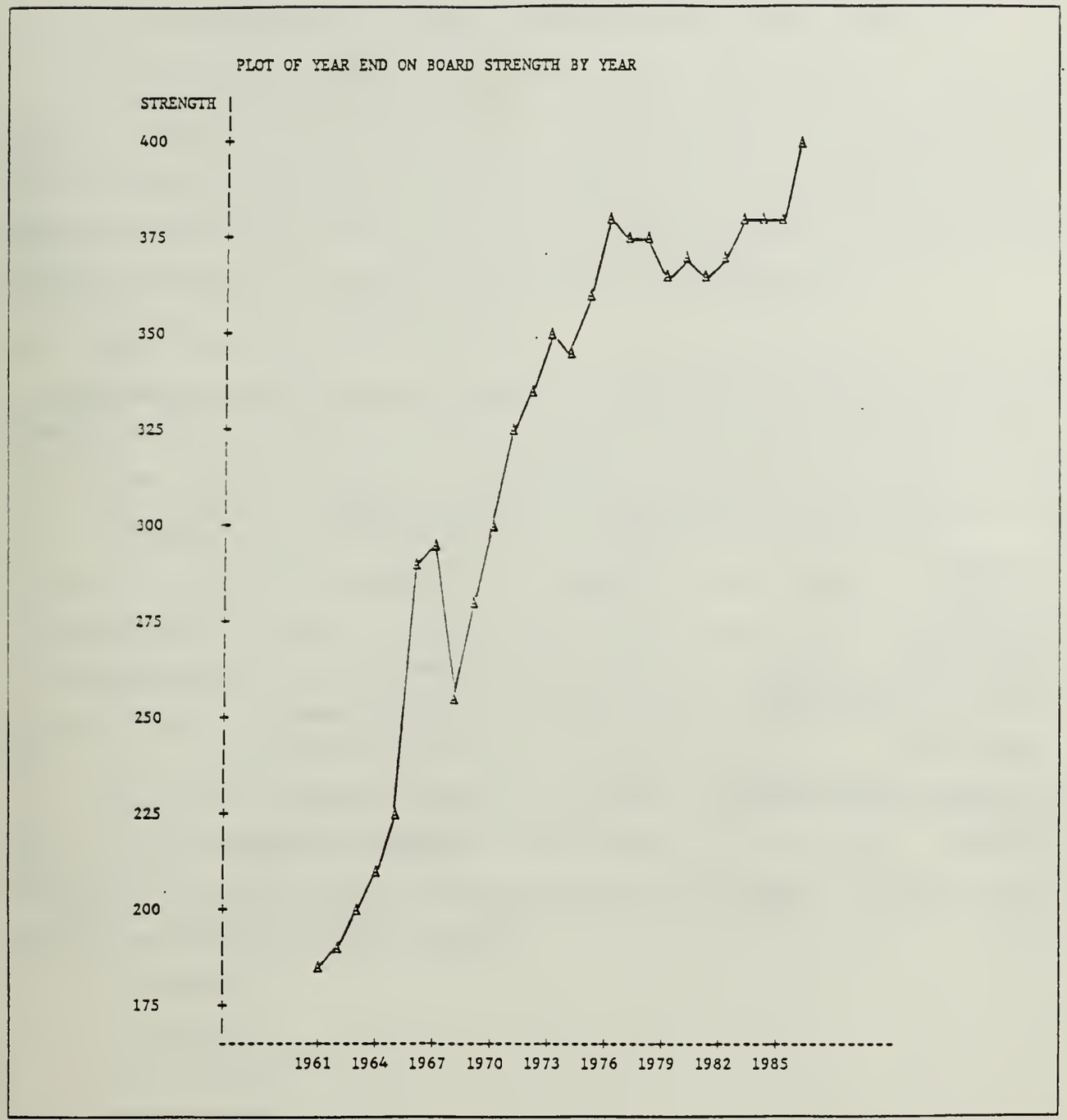


Figure 1.1 Historical Growth--On Board Strength.

TABLE 1

1972 PROMOTION SCHEDULE

RANK	GRADE	YEARS
Captain	(O-6)	18 years
Commander	(O-5)	10 years
Lieutenant Commander	(O-4)	6 years 3 months
Lieutenant	(O-3)	3 years 3 months
Lieutenant (junior grade)	(O-2)	1 year 6 months
Ensign	(O-1)	Entrance Commission

II. THEORIES OF MOTIVATION AND COMMITMENT

In order to understand job satisfaction and career commitment, it is necessary to explore a variety of complimentary theories on this subject area. This section discusses the development of research in the field of human needs. More importantly though, it will focus on the concepts and models that have been developed to explain human behavior in relation to job satisfaction, motivation, and commitment.

A. NEED SATISFACTION THEORY

Abraham Maslow was one of the first behavioral scientists to describe a hierarchy of human needs theory. Maslow's (1970) model operated on two premises:

- That an individual has certain basic wants which they are motivated to satisfy.
- That needs of a higher order are not fulfilled until lower order needs are met, and these needs are universal to all individuals [Ref. 1: p. 35].

Maslow's research which served as the foundation of need-satisfaction theory was further refined by Clayton Alderfer (1969) into a model known as ERG theory (existence--relatedness--growth). While similar to Maslow's model, Alderfer argues for a much more interactive process of need-satisfaction that is much less rigid [Ref. 2: p. 75].

Frederick Herzberg et al. (1959) and Herzberg (1966) built upon higher order need-satisfaction theory to develop theory relevant to job-design. Specifically, Herzberg's Two-Factor Theory proposed the following conditions that a job provide to enhance motivation and satisfy employees:

- Achievement
- Recognition
- Responsibility
- Advancement
- Growth in competence

[Refs. 3,4]

The problem with Herzberg's theory though, was that it was difficult to measure job characteristics explicitly. However, this was dealt with by Turner and Lawrence (1965) who developed six "requisite task attributes" which were testable, operational measures which were predicted to be positively related to worker satisfaction. [Ref. 5]

The six attributes are:

- Variety
- Autonomy
- Required Interaction
- Optional Interaction
- Knowledge and Skill Required
- Responsibility

The premise of the Turner and Lawrence (1965) model was that job enlargement, a linear combination of these six attributes, would produce an index to measure job and worker satisfaction. The result was that a high index score did not always correlate with high job satisfaction.

Hackman and Lawler (1971) based on the research by Turner and Lawrence (1965) and Blood and Hulin (1967) have postulated the following need-satisfaction theory, which will be utilized for this study. [Refs. 6,5,7] Hackman and Lawler (1971) state

> It appears that certain characteristics of the employees themselves must be taken into account simultaneously with the characteristics of their jobs in order to generate valid predictions about the behavioral and affective responses of employees at work. [Ref. 6: p. 261]

As stated so succinctly by Alderfer (1977) [Ref. 8] in a critique of Salancik and Pfeffer's (1977) [Ref. 9] criticisms of need-satisfaction theory

> Need-satisfaction models of job attitudes consist of two basic bodies of theory: expectancy theory and need theory. . . .Viewing expectancy theory and need theory as complementary means that one does not have to choose one over the other. [Ref. 8: p. 90]

In other words, expectancy theory attempts to account for differences between individuals while need theory attempts to explain individual behavior. According to Nadler and Lawler (1977) expectancy theory is based on four assumption about behavior in organizations:

1. Behavior is determined by a combination of forces in the individual and in the environment. People have different needs and expectations, formed by past experiences, that influence their response to the work environment. Different type of work environments usually make people behave in different ways.
2. Individuals make conscious decisions about their own behavior in organizations. These decisions may be about (a) membership behavior--coming to work, staying at work, being a member of the organization; or (b) effort behavior--how hard to work in performing their jobs.

3. Individuals have different needs, desires, and goals. Individuals are satisfied or rewarded by different outcomes. Understanding individual needs leads to an understanding of how each individual can be best motivated and rewarded.

4. Individuals decide among alternative behaviors based on their expectations that a given behavior will lead to a desired outcome. People tend to behave in ways that they believe will lead to rewards and to avoid behavior that may lead to undesirable consequences.

[Ref. 10: p. 27]

Based on the preceding four assumptions, Hackman and Lawler (1971), Hackman and Oldham (1975), and Hackman (1979) have developed and reliably tested a model which explains relationships about job related variables and individual differences in need strengths relating to employee motivation, job satisfaction, performance and absenteeism. These core job dimensions are:

1. Skill Variety: The degree to which a job requires a variety of different activities in carrying out the work, involving the use of a number of different skills and talents of the person.

2. Task Identity: The degree to which a job requires completion of a "whole" and identifiable piece of work, meaning, doing a job from beginning to end with a visible outcome.

3. Task Significance: The degree to which the job has a substantial impact on the lives of other people, whether those people are in the immediate organization or in the world at large.

4. Autonomy: The degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and determining the procedures to be used in carrying it out.

5. Job Feedback: The degree to which carrying out the work activities required by the job provides the individual with direct and clear information about the effectiveness of his or her performance.

[Refs. 6,11,13,12: pp.259,159,250,458]

Research by Hackman and Lawler (1971) indicates there are three general job characteristics identified as being central in developing a congruence between individual need-satisfaction and organizational goal achievement. These three general job characteristics are directly related to the four core requisite task attributes (variety, autonomy, task identity, feedback) as described by Turner and Lawrence (1965). These three characteristics are:

1. The job must allow a worker to feel personally responsible for a meaningful portion of ones work. Only if what is accomplished is seen as one's own, can an individual experience a feeling of personal success and a gain in self-esteem.

2. The job must provide outcomes which are intrinsically meaningful or otherwise experienced as worthwhile to the individual.

3. The job must provide feedback about what is accomplished. Even if the two general conditions discussed above are met, an employee cannot experience higher order need-satisfaction when one performs effectively unless feedback is obtained.

[Ref. 6: p. 263-264]

As Hackman and Lawler (1971) point out though

> It clearly is not possible to indicate for people in general what kinds of job characteristics will be likely to provide outcomes seen as meaningful and worthwhile. . . . It is possible, however, to provide some such specification for individuals who have high desires for higher order need-satisfaction [Ref. 6: p. 264].

Enhancing worker satisfaction can be accomplished by providing jobs that can be characterized as high on task identity. Characteristics such as: a) jobs which have a clear cycle from start to finish, b) jobs which enable one to see the progress being made, c) jobs which produce a visible finished product, and d) a finished product which has gone through a considerable transformation. In other words, jobs which enable an individual with a high need to develop and utilize one's competence, skills and abilities. Such a person would experience a job with these attributes as highly meaningful and worthwhile. The dimensions of autonomy and variety are also associated with the degree of meaningfulness on the job, and in this context, variety which challenges the worker. The point to be understood here according to Hackman and Lawler is

> Regardless of the amount of feedback (or variety, or autonomy, or task identity) a worker really has in his work, it is how much he "perceives that he has" which will affect his reactions to the job [Ref. 6: pp. 264-265].

B. COMMITMENT THEORY

An outgrowth of the research on job satisfaction, as related to need-satisfaction theory and expectancy theory, is the concept of organizational commitment. The research on organizational commitment has sought to demonstrate that job satisfaction is only one dimension of organizational commitment. Marsh and Mannari (1977) [Ref. 14] cite the review of American literature on commitment by Buchanan (1974) [Ref. 15] to define the concept of commitment as

> Willingness of an employee (member) to exert high levels of effort on behalf of the organization . . . . strong desire to stay with the organization . . . . degree of belongingness or loyalty . . . . acceptance of major goals and values (of the organization) . . . . a positive evaluation of the organization. [Ref. 14: p. 57]

Specifically, a large portion of the literature focuses on turnover in an organization as a function of commitment. Harris and Eoyang (1977) have developed the following two-dimension typology of an employees commitment to an organization:

1. The decision to remain with the organization.
2. The motivation to work in support of organizational objectives.

[Ref. 16: p. 3]

From these two dimensions Harris and Eoyang have developed a model which groups members into four commitment categories based on job motivation (Figure 2.1).

1. A group of highly motivated individuals planning to stay with the organization.
2. A group of poorly motivated individuals planning to stay with the organization.
3. A group of highly motivated individuals planning to leave the organization.
4. A group of poorly motivated individuals planning to leave the organization.

[Ref. 16: p. 3]

Steers (1977) and Steers and Mowday (1981) have also postulated that commitment to the organization is a better predictor of turnover than the exclusive focus on job-satisfaction. Schein (1970) and Steers (1975) have also suggested that commitment may represent one useful indicator of the effectiveness of the organization. [Refs. 17,18,19,20]

As demonstrated in this section, the ability to describe an individuals level of job satisfaction and commitment to an organization is a complex process. The intent of this thesis is to describe the NOAA Corps officers responses to the **NOAA Corps Career Outlook Survey** and to provide an analysis of the responses in relation to need-satisfaction theory. Based on the data provided, an analysis was accomplished to describe career commitment indicators in the NOAA Corps.

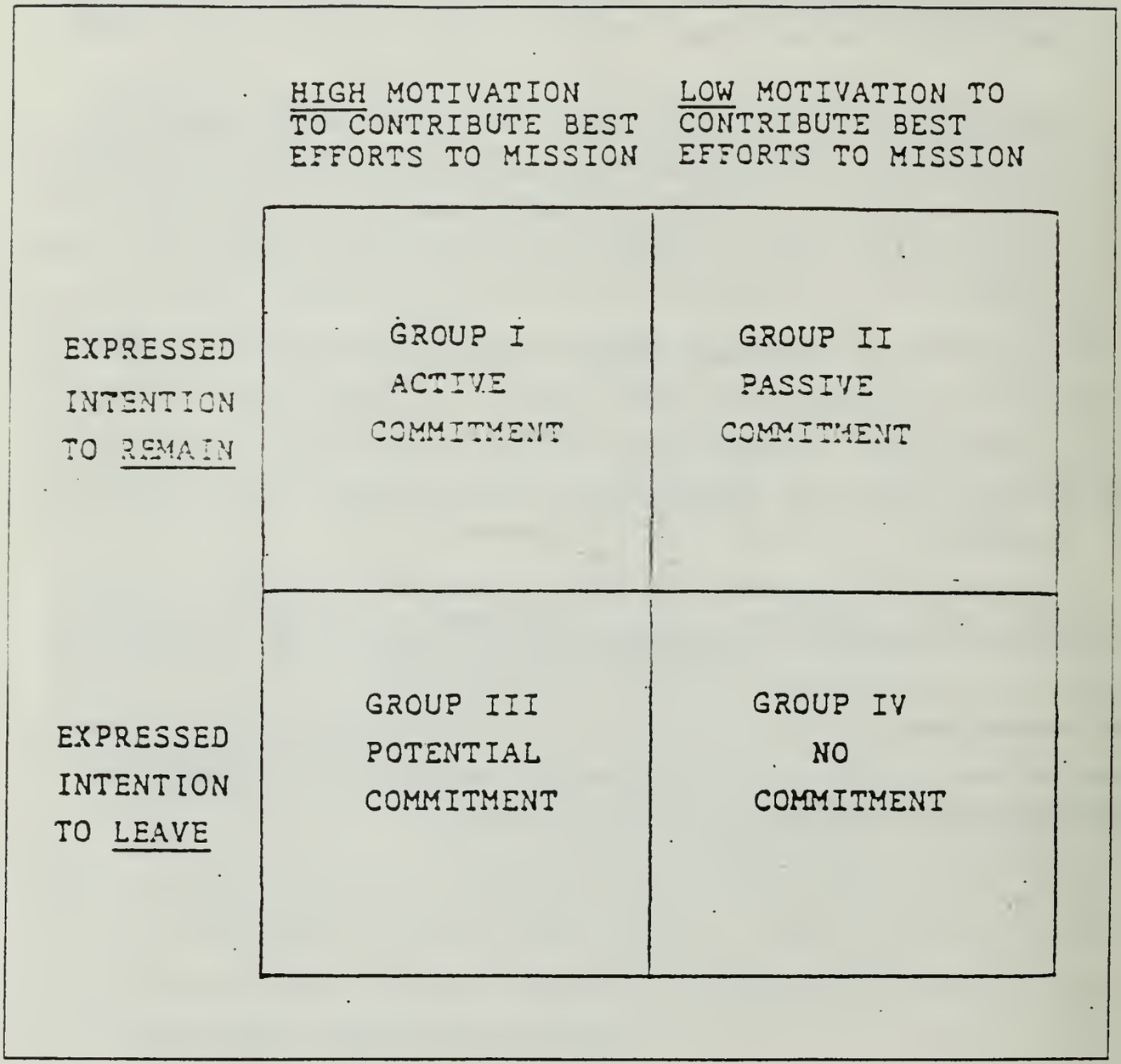

HIGH MOTIVATION TO CONTRIBUTE BEST EFFORTS TO MISSION
LOW MOTIVATION TO CONTRIBUTE BEST EFFORTS TO MISSION
EXPRESSED INTENTION TO REMAIN
EXPRESSED INTENTION TO LEAVE
GROUP I ACTIVE COMMITMENT
GROUP II PASSIVE COMMITMENT
GROUP III POTENTIAL COMMITMENT
GROUP IV NO COMMITMENT

Figure 2.1 Classification of Organization Commitment.

III. METHODOLOGY

A. CONDUCT OF THE STUDY

This thesis was initiated as the result of my developing an awareness, through classes taken at the Naval Postgraduate School, of the benefits of giving equal attention to personnel management as much as to the operational requirements of an organization. Specifically, over the last 5 years, a variety of informal discussions with my fellow officers has yielded a variety of conflicting views about the future direction of the NOAA Corps. Many of these conversations elicited a lot of negative perceptions. Given that the thesis requirement at the Naval Postgraduate School coincided with a change in the Director of the NOAA Corps, it seemed the timing was right to quantify the "perceptions" of the NOAA Corps officers pertaining to their career outlook.

Additionally, the NOAA Corps continues to face resource constraints, while carrying out its mission as an integral part of this countrys' national ocean agency, NOAA. While the NOAA Corps is limited in its ability to garner more funding, the NOAA Corps is not limited in developing and managing its primary resource, the NOAA Corps officer. The **NOAA Corps Career Outlook Survey** presents an opportunity to address the strengths and weaknesses of the NOAA Corps. This study was facilitated by the support of Captain Walter S. Simmons, NOAA, Acting Director of the NOAA Corps at the time the survey was administered, and Commander Arthur N. Flior, NOAA, Chief, Program Planning, Liaison, and Training Division. While this survey was endorsed by Captain Simmons (Appendix A), the content of the questionnaire was solely the author's responsibility.

B. THE QUESTIONNAIRE

The questions developed for the survey were created based on my own experience and knowledge. While questions were developed to test this knowledge, an attempt was also made to form questions within a theoretical framework.

The data obtained for the study were drawn from a self-administered, mail-return questionnaire provided to all active duty NOAA Corps officers. The questionnaire (Appendix B) of 51 questions, included a section for voluntary comments pertaining to the respondents feelings about work related attitudes and career orientation.

In July 1986, 375 questionnaires were mailed out with (1) a letter from the Acting Director of the NOAA Corps endorsing the survey and (2) a letter from the author explaining the objectives of the research project (Appendix C). Due to the small size of the sample population it was felt that sending surveys to all officers, versus a random sample, would provide better data and a more representative distribution by rank.

C. THE SAMPLE

The returned questionnaires yielded a sample size of 319 (85%) respondents. Approximately 3% of the questionnaires returned were not fully usable for computer analysis. Most often questionnaires were rejected because of incomplete demographic data. The response rate by grade is shown in Table 2. For comparative purposes Table &all indicates what the response rate by grade would have been if all 375 questionnaires had been returned utilizing the established NOAA Corps grade distribution percentages.

TABLE 2
RESPONSES BY RANK

GRADE	NUMBER	PERCENT
O-1	35	11.2%
O-2	55	17.6%
O-3	79	29.2%
O-4	79	22.4%
O-5	70	15.3%
O-6 & Above	25	8.3%
	312	100%

As Tables 2 and 3 demonstrate the response rate by rank indicates that all ranks were representatively sampled. If anything, Ensigns are under represented and Lieutenants over represented in the total sample population. However, as the analysis is presented by rank this does not skew the analysis or the results.

TABLE 3
ACTUAL GRADE DISTRIBUTION

GRADE	NUMBER	PERCENT
O-1	68	18%
O-2	68	18%
O-3	86	23%
O-4	71	19%
O-5	53	14%
O-6 & above	30	8%
	375	100%

D. INSTRUMENTATION

The questionnaire employed in this study was developed at the Naval Postgraduate School, expressly for the purpose cited previously. Items selected for inclusion were drawn and adapted from existing instruments when possible. Sources utilized were Feris and Peters (1976), Cook et al. (1981), and Jones and Bearley (1985) In addition, specific questions were developed that the previously cited works did not cover. [Refs. 21,22,23]

The questions formulated were designed to cover the four core dimensions of the Hackman and Lawler model [Ref. 6: p. 265], on need-satisfaction and the personal, organizational variables, job satisfaction and perceived organizational climate of the Harris and Eoyang model (Figure 3.1). [Ref. 16: p. 8] Responses to all questions (Q), except Q44 through Q46, were scored on a Likert-type scale.

E. ANALYSIS

As described in Chapter II, the level of one's job satisfaction can be an effective predictor of an employee's career intentions. And as the Harris and Eoyang model (1977) hypothesizes (Figure 3.1), commitment and retention are an outgrowth of job satisfaction. The focus of this section is to describe the survey responses, categorized by rank, in relation to the four core dimensions of the Hackman and Lawler need-satisfaction model.

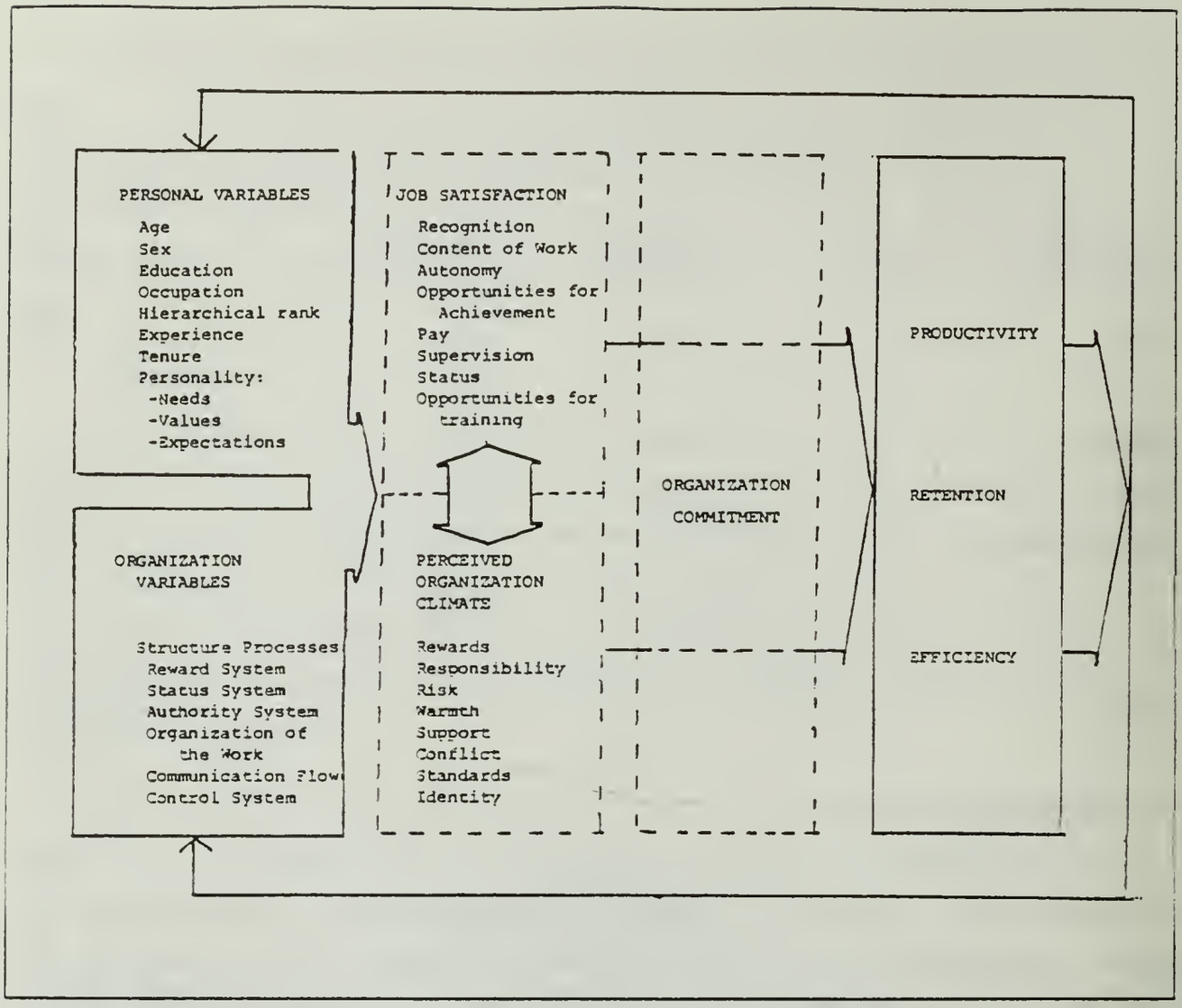


Figure 3.1 Conceptual Model of Organization Commitment.

The basis of this descriptive analysis rests on two assumptions:

1. An officer's decision to make a career in the NOAA Corps is a function of length of service and certain attitudes centering on work related variables.
2. Officers do have attitudinal differences about the NOAA Corps which will affect the decision to leave before 20 years of service, retire at 20 years of service, or stay past 20 years of service.

The concept of career commitment in the NOAA Corps is developed by subjecting the data to a step wise discriminant analysis using Q36 "Intention To Separate or Retire" as the dependent variable with Q1 through Q35, and Q37 through Q51 being the independent variables. The statistical program SPSS-X (2.0) was utilized to process the data. The program controls the step-wise selection of independent variables. Linear combinations of the independent variables (predictor) are formed and

serve as the basis for classifying cases into groups. In order to arrive at the "optimal" discriminant function, one which minimizes mis-classification, Wilks' lambda is calculated for each variable. This statistic maximizes the distinction between groups, when compared to within group variability. The larger the ratio between these two groups (F-ratio) the more significance the discriminating function possesses.

F. PROCESSING THE RAW DATA

From the raw data provided, the data were processed in two forms for analysis. Responses were crosstabulated by rank to describe job satisfaction.

1. Crosstabulation

For the analysis in the areas of need-satisfaction, job satisfaction, motivation, and commitment, responses were analyzed by collapsing the eight-point scale to a three-point scale for Q1 through Q33 and recoded to either Disagree, Neutral, Agree. Questions with no opinion responses were dropped from the analysis. No opinion was also dropped from Q34 and Q35 leaving a seven-point scale. In terms of data presentation and statistical analysis, this format provides the most useful results. The analysis crosstabulated rank by each question to examine job satisfaction and career commitment [Ref. 24: .pp 337, 689].

2. Categorizing the Questions

For the purpose of examining the four core elements of the need-satisfaction model questions were categorized as shown in Table 4.

TABLE 4
QUESTIONS TESTING NEED-SATISFACTION

Skill Variety	15, 16, 20
Task Identity	10, 13, 14
Autonomy	11
Feedback	23, 24, 26, 34

Additionally, general measures of job satisfaction, motivation and commitment were crosstabulated with some questions having overlapping indicators. These questions are indicated in Table 5.

TABLE 5

QUESTIONS TESTING OTHER JOB CHARACTERISTICS

Job Satisfaction	3,4,6,7,8,11,20,21,22,24,25,27,28,30
Motivation	11,20, 21, 22, 24,27,28,30,35
Commitment	1,2,3,4,5,16,31,32,33,35,36

G. SURVEY RESULTS GENERAL DESCRIPTION

The following descriptions of results are broken down by rank and focus on the four core dimensions of the Hackman and Lawler need-satisfaction model. As part of the analysis, a chi-square test of independence was performed to determine whether survey responses were dependent or independent of rank. Agreement to a question indicates a favorable attitude toward the area being tested. Appendix D presents a full description of the results.

1. Skill Variety

Q15 Temporary Duty (TDY) and Job Variety. The responses to this question are independent of rank. The most significant response group is the grade of O-1, where only 45.7% agree and 40% disagree that they would enjoy taking a TDY assignment on short notice. This compares to all other grades where agreement was 60%, or higher and disagreement 30%, or less.

Q16 Short Notice Relocation. The responses to this question are clearly independent of rank. No group of officers indicated that they would enjoy the idea of short notice geographic relocations.

Q20 Corps Utilizes Abilities. The responses to this question increase linearly in agreement with rank. However, at the grade of O-1 agreement is surprisingly low (25.7%) and O-2's are split almost one to one as to their feelings of skill utilization. Clearly, officers at the grade of O-1 feel the work they perform is below what they believe they have the capacity to perform. While officers at the grade of O-2 are developing professionally at different rates as demonstrated by split opinions.

Based on these three questions, skill variety is least fulfilled in the grades of O-1 and O-2.

2. **Task Identity**

Q10 Specialize versus Diversify. The responses to this question indicate that the NOAA Corps is split one to one in agreement versus disagreement on career specialization versus career diversification. There are two perceptions in the NOAA Corps concerning career paths: (1) an officer should be a generalist and (2) an officer should specialize. Interestingly, the grade of O-4 agrees the most (50.7%) that an officer should specialize in ones career.

Q13 Supervise People. The responses to this question indicate that the desire to supervise people increases with rank. Interestingly, the grade of O-3 (89.9%) is second only to the grade of O-6 (92.3%) in indicating a strong desire to manage people.

Q14 Strictly Research. The responses to this question were that in the grade of O-1, 54.3% agreed that they would prefer an assignment which is strictly research. This contrasts with all other ranks which only agreed by 25% or less (O-4 12.9%).

In terms of task identity, the responses to these questions indicate that there are a variety of perceptions in the NOAA Corps in terms of identifying with a career role. This difference in attitudes toward task identity is the greatest between the grades of O-1 and O-2, and O-3 through O-6, indicating that career paths and roles are seen quite differently between the junior and senior ranks.

3. **Task Significance**

Q12 Management Responsibilities. The responses to this question indicates that the desire for management responsibilities rises quickly from the rank of O-1 (62.9%) and peaks sharply at the grade of O-3 (92.4%). All O-6's (100%) indicate a strong desire to be provided the opportunity to have management responsibilities.

Q19 Meaningful Assignments. Responses to this question are surprising. In particular only 33.3% of the O-2's that responded agree that their assignments are meaningful. What one would assume is that agreement to this question should increase rapidly with rank. What the results indicate is that agreement to this question is low across the grades of O-1 through O-5, and agreement by O-6's is only 57.7%.

Q21 Present Assignment Rewarding. The response to this question is in contrast to Q19, in that there is a much more positive attitude that officers find their present assignment personally rewarding (76.1%).

The preceding questions indicate officers desire responsibility and feel a high personal satisfaction in what they do. Also, the majority of officers perceive assignments as less than meaningful.

4. **Autonomy**

Q11 Need For Autonomy. The responses to this question indicate an extremely high need by all ranks for autonomy (93.6%). The response to this question is indicative of the desire of all officers to be able to exercise a lot of independent thought and action in their jobs.

5. **Feedback**

Q23 Timely Recognition. The responses to this question indicate low agreement across all ranks, but in particular at the grades of O-2 (18.5%) and O-3 (19.2%).

Q24 Peer Recognition of Job Accomplishment. The responses to this indicate question relatively strong agreement to this question at the grades of O-1 (71.4%) and O-6 (76.9%). For the grades of O-2 through O-5 though, recognition of job accomplishment by peers is not perceived to be recognized.

Q26 Feedback On Performance. Responses to this question indicate that less than half of all NOAA Corps officers (48.6%) receive adequate feedback on job performance. What is surprising is the response by the grades of O-1 and O-2 who receive fitness reports every six months. Yet only 41.2% of the O-1's and 52.7% of the O-2's agree they receive sufficient feedback on job performance.

Q34 Feedback From Immediate Supervisor. Responses to this question indicate that 31.2% of all NOAA Corps officers never receive feedback, on what they need to do to advance and achieve recognition in their present assignment, 36% indicate receiving occasional, informal feedback, and only 9% indicate that they receive feedback annually in this area.

Feedback as tested by these questions is clearly not meeting the needs or desires of the majority of all NOAA Corps officers. Of all grades, only O-6's indicate a slightly higher rate of feedback than do other grades.

H. INDICATORS OF SATISFACTION, MOTIVATION AND COMMITMENT

1. General Job and Attitude Indicators

The following questions are presented to describe other indicators of job satisfaction, motivation, and commitment. As indicated in Table 5, some questions are indicators of more than one attitude.

Q1 Best Organization. Responses by O-3's indicate that 84.8% agree, versus 51.4% for O-1's, that the NOAA Corps is the best of all possible organizations to

work for. As one measure of job satisfaction and an indicator of commitment, it is clear that O-3's have made a career decision which has been made in relation to exploring other alternatives in the job market.

Q2 Lot to Gain. Again, O-3's are the highest in agreement (89.9%) and O-1's the lowest in agreement (74.3%) that there is a lot to gain by making a career in the NOAA Corps. It is apparent that at the grade of O-3, the benefits of a career in the NOAA Corps become more evident, and career intent is firmly established.

Q3 NOAA Corps More Interesting Job Than Others and Q4 Find Another Job As Interesting As The NOAA Corps. In terms of seeing the NOAA Corps as more interesting than other jobs, 90.7% of all officers agreed with this question. This compares to 58.2% of all officers who agree that they could find another job as interesting as the NOAA Corps. As a group O-2's agree the most (63.6%) that they could find another job as interesting as the NOAA Corps. As an indicator of career intent it is evident that O-2's have not solidified career intent.

Q5 Security Concern. As a measure of commitment, the concern for security is the lowest for the grade of O-1 and peaks at the grade of O-4. The difference here is whether an officer is vested (i.e., retirement rights). Security concerns at the grades of O-3 and O-4 would be expected when the career implications for promotion passovers are much higher than at the grades of O-1 to O-2, and O-5 to O-6.

Q6 and Q7 Status and Salary. As indicators of job satisfaction, responses to these questions are purely a function of rank. Ensigns in particular though are very low in agreement in satisfaction with these areas, 29.4% and 14.3% respectively.

Q8 Satisfaction With Education And Training. Responses to this question indicate that satisfaction is low in the grades of O-1 and O-2, rises sharply at the grade of O-3, falls at the grade of O-4 and rises again to peak at the grade of O-6. One could postulate that the decline in satisfaction with education and training at the grade of O-4, is tied to whether an officers aspirations for graduate education at mid-career are met or not met. Graduate education is highly sought after in the NOAA Corps.

Q16 Short Notice Relocation. As a measure of commitment to organizational needs, all ranks indicate that they would not be willing to make geographic relocations on short notice (19.6% agreement). This indicates that reassignment on short notice would accomplish little in eliciting positive attitudes toward the NOAA Corps.

Q22 Incentives To Improve Performance. The low agreement to this question is surprising. Only 51.1% of all NOAA Corps officers feel there are incentives to

improve performance. As a measure of job satisfaction and motivation, only 32.4% of the O-1's agree there are incentives to improve. Clearly this low level of motivation is indicative of a larger problem. The responses to this question correlate with Q-23's low agreement by all ranks (29.8%) on the lack of timely recognition in the NOAA Corps.

Q31 Advise Friends To Join The NOAA Corps. As a measure of commitment, the grade of O-2 agrees (77.8%) the strongest, that they would advise friends to consider the NOAA Corps for a career. One would predict that as an officer, who is satisfied and commited, progresses in one's career, the strength of agreement to this question would increase. However, after the grade of O-2, the level of agreement falls to 53.2% at the rank of O-5 and then rises to 69.2% agreement at the grade of O-6. Clearly, this indicates a morale problem, when only 63.4% of all NOAA Corps officers would recommend the career they currently occupy to their friends.

Q32 Twenty-Year Retirement--Second Career. Of all groups, the benefit of a 20 year retirement, and the opportunity to start a second career, is most favored by the O-3's (81% agreement). This indicates that a high percentage of O-3's are commited to at least a 20 year career. However, based on the response to Q36, "Retirement--Separation Plan," indicates that 39.7% of the O-3's and 34.3% of the O-4's indicate retiring at 20 years of service, while 61.3% of the O-3's and 65.7% of the O-4's indicate staying past 20 years of service. The benefit of a career longer than 20 years is not recognized by a large proportion of mid-grade officers.

Q33 Care About The Future Of The NOAA Corps. The strength of agreement to this question indicates that 90.7% of all NOAA Corps officers care about the future of the NOAA Corps. Regardless of other dissatisfactions expressed, such a strong attitude indicates strong attachment by the majority of officers to the NOAA Corps.

Q35 Promotions Will Get Better. Perhaps many of the less positive feelings expressed in the survey center around this question. Of all the officers who expressed opinions, 70.7% feel that promotions will not get better for 5 or more years. This would strongly correlate with Q22 "Incentives To Improve performance," Q31 "Advise Friends To Join The NOAA Corps," and Q36 "Retirement--Separation Intent."

As demonstrated by Table 6, the assessment that promotions will not get better for 5 years or more is correct at the present time. With no growth, separations, or retirements this situation will persist. This situation becomes even more clear when the retirement intent of the O-5's and O-6's are known (Table 7).

TABLE 6

BREAKDOWN OF GRADE BY YEARS OF SERVICE

YEARS	2	3	4	5	6	7	8	9	10	11	12	13	14	15
O-2	3	19	13	13	5									
O-3					8	16	11	5	14	14	4			
O-4									5	3	17	18	16	7
O-5													2	4

YEARS	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
O-5	12	15	6	3	3										
O-6		1			1	5	3	1	3	2	2	5	2		

TABLE 7

RETIREMENT INTENT O-5 AND O-6

Years Of Service To Retirement	20	21-25	25-29	30	30+
Commander	12	11	13	7	3
Captain		5	7	10	2

2. Specific Indicators Of Communication and Leadership

The following three questions, while not applied to the need-satisfaction model, are specific indicators of communication, and confidence in the leadership of the NOAA Corps.

Q17 Definite Assignments To Have Had and Q18 NOAA Corps Makes Clear What These Assignments Are. The responses to these two questions present two clear positions about communication and the assignment process. Based on the chi-square test of independence (95% confidence level), responses to Q17 are dependent on rank (significance level 0.8507) and responses to Q18 are independent of rank (significance level 0.0001). Responses to Q17 indicate that 67.5% of all NOAA Corps officers perceive that there are definite assignments (i.e., career paths) one must have had to move up in the NOAA Corps. In comparing Q17 to Q18 however only 16.1% of all officers agree that the NOAA Corps makes clear what these assignments are. The most surprising response to Q18 comes from the grade of O-2 where only 1.8% of the officers feel that the NOAA Corps makes clear what assignments, or career paths are necessary, or more advantageous than others for advancement.

Q29 Best People Rise To The Top Of all NOAA Corps officers who responded to this question, only 18.5% agree that the best people rise to the top in the NOAA Corps. What makes this response unusual, is that one would assume that agreement should increase linearly with rank and experience, as an officer gains a broader perception of the organization. It is possible that the response to this question does not indicate a lack of faith in senior management, rather a lack of faith in the promotion, separation, and retirement policies of the NOAA Corps.

I. DISCRIMINANT ANALYSIS

In focusing on the descriptive job characteristics in the preceding analysis, a question is raised, what are the specific factors that can be utilized to predict an officer's commitment to a career in the NOAA Corps? In an attempt to quantify these factors, the survey results were processed utilizing SPSS-X (2.0) to perform a step wise discriminant analysis. Responses to questions were collapsed and recoded in the same format as used in crosstabulation.

The results of the discriminant analysis are shown in Table 8. Based on this analysis, 73.54% of the grouped cases were correctly classified as illustrated in Figure 3.1. What Table 8 indicates is, knowing an officers responses to the twenty-four

TABLE 8

DISCRIMINANT ANALYSIS SUMMARY TABLE

STEP	ACTION ENTERED	VARS IN	WILKS' LAMBDA	SIG.	LABEL
1	Q43	1	0.734851	0.0000	GRADE
2	Q2	2	0.655401	0.0000	LOT TO GAIN
3	Q30	3	0.607307	0.0000	SATISFIED W/ PROMOTION RATE
4	Q39	4	0.576298	0.0000	SEX
5	Q32	5	0.551412	0.0000	EARLY RETIREMENT--SECOND CAREER
6	Q25	6	0.533411	0.0000	JOB RESPONSIBLITIES CHALLENGING
7	Q19	7	0.517520	0.0000	MEANINGFUL ASSIGNMENTS
8	Q35	8	0.503262	0.0000	PROMOTIONS WILL GET BETTER
9	Q20	9	0.489023	0.0000	CORPS UTILIZES ABILITIES
10	Q48	10	0.478682	0.0	CURRENT ASSIGNMENT
11	Q49	11	0.465897	0.0	CURRENT LOCATION
12	Q23	12	0.454727	0.0	TIMELY RECOGNITION
13	Q40	13	0.445932	0.0	AGE
14	Q42	14	0.437397	0.0	CHILDRENS AGES
15	Q34	15	0.429558	0.0	SUPERVISOR COMMUNICATION
16	Q28	16	0.421818	0.0	QUALIFICATIONS & PROMOTION
17	Q47A	17	0.414602	0.0	CAREER AREA: CHARTING
18	Q31	18	0.406420	0.0	ADVISE FRIENDS TO JOIN CORPS
19	Q27	19	0.399957	0.0	OPPORTUNITY TO ADVANCE
20	Q47G	20	0.393839	0.0	CAREER AREA: ADMINISTRATION
21	Q10	21	0.388031	0.0	SPECIALIZE VS. DIVERSIFY
22	Q5	22	0.382375	0.0	SECURITY CONCERN
23	Q44	23	0.376877	0.0	YIG
24	Q47E	24	0.371674	0.0	CAREER AREA: AVIATION
25	Q1	25	0.368474	0.0	BEST ORGANIZATION

discriminating variables, and using Q36 "Retirement--Separation Intent" as the dependent variable, one is able to correctly predict 73.54% of the time whether an officer separates before 20 years of service (Group 1), retires at 20 years of service (Group 2), or stays past 20 years of service (Group 3). What Figure 3.1 indicates, is that of the 74 officers who said they would leave before 20 years of service, 79.7% are correctly classified, 80 officers indicating retirement at 20 years of service, 67.5%

correctly classified, and 140 officers indicating staying past 20 years of service, 72.9% correctly classified.

CLASSIFICATION RESULTS -

ACTUAL GROUP	NO. OF CASES	PREDICTED GROUP MEMBERSHIP 1	2	3
GROUP 1	73	58	8	7
		79.5%	11.0%	9.6%
GROUP 2	80	9	57	14
		11.3%	71.3%	17.5%
GROUP 3	138	13	26	99
		9.4%	18.8%	71.7%
UNGROUPED CASES	2	2	0	0
		100.0%	0.0%	0.0%

PERCENT OF "GROUPED" CASES CORRECTLY CLASSIFIED: 73.54%

Figure 3.1 Classification of Career Intent.

Discriminant analysis is useful for predictive power. It should be understood, that the variables presented in Table 8 are not a list of hierarchical job satisfaction indicators. What the variables do indicate are response patterns to questions based on the dependent variable Q36 from which predictions can be made concerning career intentions.

J. DISCRIMINANT ANALYSIS RESULTS

Of the 24 variables listed in Table 8, variables 1 through 7 account for 68.63% of the 73.54% predictive power. The following discussion describes these results to demonstrate why these variables are factors of career intent.

Q1 Grade. Intuitively knowing an officers grade would have predictive power as to career intent. The higher the grade, the longer the length of service and the more vested interest in a NOAA Corps career.

Q2 Lot To Gain In A Career In The NOAA Corps. An officer's response to this question again indicates how an officer perceives the benefits of a career in the NOAA Corps. The high discriminating power of this variable and the high agreement to this question (83.0%) in the crosstabulation verify the predictive power of this question with respect to career intent.

Q30 Satisfaction With Your Promotion Rate. Satisfaction with the promotion rate would also be a solid predictor of career intent. This is particularly true in the grades of O-1 and O-2. What one must be careful of in interpreting this variable is, that low satisfaction with the rate of promotion (as is the case with this question) does not mean an officer is actively commited to the NOAA Corps. As indicated by Harris and Eoyang (1977), this question presents information to indicate that the four commitment orientations of active commitment, passive commitment, potential commitment and no commitment exist in the NOAA Corps (Figure 2.1). In any uniformed service where success and rewards for outstanding performance are measured by promotion, dissatisfaction with the rate of promotion, yet low turnover, lead one to believe that passive and no commitment groups exist in the NOAA Corps. This is substantiated by Q36 "Retirement--Separation Intent" in which 45.8% of the O-1's and 31.5% of the O-2's currently indicate leaving the NOAA Corps before 20 years of service. The discriminant analysis (Figure 3.1) also predicts similar levels of retention, hence commitment. This also raises the point that even though an officer indicates the intent to complete a career of 20 years or longer, it is no indication of an officer's propensity to be actively commited to the productivity of the NOAA Corps.

Q39 Gender. For the purpose of this study gender was requested to describe areas where male and female officers may differ in attitudes concerning the NOAA Corps. A crosstabulation of gender indicated a 10% female population of survey respondents. This disproportionate weighting would slant an analysis broken down by gender. What research has fairly consistently found though is that gender is related to commitment and that as a group women were found to be more commited than men. This has been explained from the standpoint that women generally had to overcome more barriers to attain their positions in the organization, thereby making organizational membership more important to them. [Ref. 25: p.31] While only four female officers indicated a career longer than 20 years, overall, women tended to agree to a higher percentage of questions more often than men indicating a potentially higher level of commitment than men.

Q32 Early Retirement--Second Career. The benefit of a 20-year retirement is clearly recognized as an inducement for retention in all the uniformed services. In the NOAA Corps this benefit is valued the most by the grade O-3 (83.1%). It is also at the grade of O-3 where most career decisions are solidified. Responses to this question can only confirm career commitment, they cannot be completely relied upon to predict commitment to the organization.

Q25 Job Responsibilities Challenging. High agreement (85.2%) to this question across all ranks is a good variable to predict career intent. Where an officer sees oneself as being provided the opportunity and responsibility to demonstrate abilities, satisfaction will lead to a more commited individual. It is this opportunity that develops and increases commitment. Responses to Q20 "Corps Utilizes Abilities" demonstrates that officers in the grades of O-1 and O-2 in particular feel their talents are under utilized. This is the group where commitment is the weakest, and where more attention should be paid to bolster these feelings.

Q35 Promotions Will Get Better. It is interesting to note that two out of the top seven variables deal with promotion as an indicator of career commitment. Understandably career intent would be strongly related to future promotions. This is particularly true in the junior ranks, where the current feelings on status and salary are low, but which should change with promotions.

K. COMPARISON OF 1986 SURVEY WITH 1969 ESSA CORPS SURVEY

The following is a comparative analysis of the research conducted for this thesis, with the results of the ESSA Corps Motivation Survey conducted in 1969. Not all questions have comparative data, and in some cases the wording of the questions was not the same, but the variables being tested were the same. Table 9 illustrates the mean need fulfillment (MNF) for selected questions. The larger the MNF deviates from a score of 0.0, the greater the level of dissatisfaction. Raw data were not available from the 1969 study; therefore, only processed results can be utilized for comparison. Questions in the 1969 study were developed by Professor Edward Lawler at Yale University and since this thesis utilized the Hackman and Lawler (1971) model of need-satisfaction many similarities exist in what was tested. Question numbers in parenthesis refer to the 1969 ESSA Corps study.

Q6 (Q70) Status. The feelings of satisfaction with status in rank has changed since 1969. The most significant change is the decline in satisfaction with status in the

TABLE 9

MEAN NEED FULFILLMENT SCORES 1969

GRADE	O-6	O-5	O-4	O-3	O-2	O-1
QUESTION						
70	0.68	0.65	1.000	1.59	1.920	2.08
74	0.95	0.45	0.250	1.33	2.130	5.72
75	0.11	0.40	0.125	-0.37	-0.527	-1.04
78	0.90	1.45	0.875	1.09	2.180	1.67
83	1.68	1.30	1.120	2.34	2.580	1.96
85	1.16	0.35	0.562	0.91	0.948	1.25

grade of O-1 and a slight increase in satisfaction with status in the grade of O-2. A slight decline in the satisfaction with status is also seen in the grades of O-3 and O-4.

Q24 (Q73) Peer Recognition of Job Accomplishment. In 1969 doing ones job well and receiving peer recognition was highest for the grade of O-4. Currently, the groups that rate peer recognition as high are the O-1's and O-6's. Interestingly, some of the O-4's of 1969 are the O-6's in 1986.

Q11 (Q74) Autonomy. The need for autonomy today is still the same, if not higher than it was in 1969. This measurable increase really comes as no surprise as the officers selected into the NOAA Corps today are better educated, with expectations and needs that are part of the work force in the 1980's. Research has actually shown that the higher the level of education the harder it may be for an organization to meet the needs and expectations of the individual [Ref. 25: p. 30].

Q5 (Q75) Security Concern. Security needs have changed for all ranks since 1969 except for the grade of O-4. In 1969, O-4's were concerned most with security followed by the grades of O-5, O-6, O-3, O-1 and O-2. In 1986 concern is still highest with O-4's, followed by the grades of O-3, O-6, O-2, O-5 and O-1. A change that is worth looking at is the O-3's moving from fifth in security concern in 1969 to second in security concern. This has two interpretations. First, career intent is high for the O-3's as indicated by the high agreement (89.9%) to Q2 that there is a lot to gain in a

NOAA Corps career. With the time vested in the NOAA Corps (6 to 12 years) the ability to achieve a 20-year career can seem tenuous with the uncertainty of promotions and passovers. Secondly, 69.9% of the O-3's and 76.5% of the O-4's are married which presents a security concern for the ability to support a family.

Q7 (Q78) Salary. Satisfaction with salary is an area that has also changed in 17 years. Whereas O-2's were least satisfied with salary in 1969, today the grades of O-2 to O-4 are similar in their satisfaction with salary. A change that differs substantially though, is the strong dissatisfaction with salary at the grade of O-1. It is my belief that this again is tied to the expectations of todays work force. It is also a partial explanation why 42.9% (Q36) of all O-1's express the opinion that they will leave the NOAA Corps before 10 years of service. While pay has been shown to have a weak association to commitment, technically competent people still require adequate pay as an inducement to stay with the organization [Ref. 25: p. 60].

Q17 (83) Being Informed. Question 83 in 1969 asked the officer to respond to the following question, {1 (low) to 8 (high)}, "The feeling of being informed - A) How much is there? B) How much should there be? C) How important is it to me?" In 1969, all officers indicated it was very important to be informed, with the grades of O-4 and O-5, followed by O-6 indicating this need was not being met. The author interprets "informed" to mean knowledge about assignments and information about policies and procedures in the NOAA Corps. In some respect "informed" could also be interpreted to mean "feedback."

For comparative purposes, based on the responses to Q18 "NOAA Corps Makes Clear What Assignments", Q26 "Feedback On Performance", and Q34 "Supervisor Communication", the majority of all NOAA Corps officers express that they do not receive adequate information on assignments, job performance, or career planning. We can only speculate that the breakdown in communication over the last 17 years is a function of a more complex organization where the focus has been on the operational aspects of the NOAA Corps. The breakdown in communication may also be due to the perception on managements part **at all levels** that adequate information and feedback is being communicated, or that the expectations of the NOAA Corps officers are unrealistic about what constitutes being informed. Nevertheless, the area of information and feedback warrants further attention.

Q27 (Q85) Opportunity To Advance. The responses to this question in 1969 indicated that officers desires and expectations for promotions were satisfied at all

grades. This compares to the responses in 1986, where optimism at the grades of O-1, O-2, and O-5 is high concerning promotion, and low in the grades of O-3 and O-4. This information really comes as no surprise, considering the period of growth in 1969 and the lack of growth in the NOAA Corps in the last 10 years. What is encouraging though is that the grades of O-1 and O-2 are still optimistic about their promotion opportunities.

The ESSA Corps study of 1969 indicated that, "over half of the officers in grades O-1 through O-4 felt that their work did not utilize their educational background" [Ref. 26: p. 35]. This aspect of the NOAA Corps has improved for the grades of O-3 and O-4. However, the grade of O-2 is split, 41.8% disagreeing and 47.3% agreeing, while the grade of O-1 strongly disagree that their abilities are utilized. As the ESSA study indicated, "nearly 90% of the Ensigns rated the amount of special skill required for their jobs as less than 4 on a scale of one to seven" [Ref. 26: pp. 35-36]. This situation continues to exist in 1986.

As pointed out in the ESSA study, and as written comments to the author indicate, many Ensigns feel that they did not receive complete information about the NOAA Corps when recruited. This was particularly true concerning the sea-going aspects of the NOAA Corps. Whether this is true or not, it is the perceived feeling, and as one officer wrote, "only after you are in the NOAA Corps can you begin to understand what it is all about."

Rather than say the recruiters are not giving officer candidates a complete picture of the NOAA Corps, I believe that the lack of understanding junior officers have concerning the NOAA Corps, and how their abilities are utilized, is the result of the NOAA Corps not integrating, or "socializing" a new officer into the organization. As Hughes (1973) states in *Job Satisfaction In Industry and In the Military*

> The period of initial training has a crucial influence on the career decisions of a soldier. That this period be one of involvement, meaning, realism, purpose, and utility is essential [Ref. 27: p. 157].

It's apparent that O-1's, and to a degree O-2's, do not connect or associate the value of the duties they perform early in their career with fulfilling a need for the NOAA Corps and the country. This is particularly true of the first sea tour, where sea duty is a "job" to get to the first land assignment.

These attitudes can be changed if the junior officer is provided the attention and leadership by senior officers to integrate them into the NOAA Corps. What is lacking is communication in the form of career counseling. And career counseling is something only experienced officers, particularly officers in positions of leadership can provide. As Hughes (1973) points out, this requires a change in the attitudes of senior officers.

> (In reference to upper management) . . . . He tends to reject the idea of making jobs "better" at the lower level of the hierarchy on the grounds that he himself experienced that type of work on the way up, he remembers it, and it was not all that bad. Undesirable experiences are described as good for building character. How an executive perceives jobs of his subordinates as well as how he thinks "they" see their jobs usually differs considerably from the subordinates perceptions of their jobs. [Ref. 27: p. 151]

What Hughes is communicating is that senior management is in a powerful position to affect junior officers attitudes of self-worth, value to the NOAA Corps, and most importantly, in making the decision to actively commit to a career in the NOAA Corps. As the ESSA study indicated

> The small size of the organization means that a relatively small turnover percentage still has great impact on the assignment pattern and general character of the Corps [Ref. 26: p. 10].

Based on the preceding discussion it is clear that all officers, but particularly junior officers, need more career guidance and feedback to build a more cohesive and informed NOAA Corps.

In general, the NOAA Corps has gone through a considerable evolution since its formation in 1970. Change and adaptation to external and internal influences has been achieved through the flexability that is an inherent feature of the NOAA Corps. What the comparison of these two studies indicates though, is that attention to personnel management could be better. This is not a criticism of current management policy, rather it is a recommendation that with a more conscious awareness to the needs of the NOAA Corps officers, job satisfaction, career commitment, and productivity could be enhanced.

IV. DISCUSSION

As the literature and research cited in previous chapters indicates, the nature of the relationships between job characteristics and employee satisfaction is multi-dimensional. Job satisfaction in the NOAA Corps is just as complex, but with the following qualification. NOAA Corps officers are recruited with academic standards and "technical" degrees specifically to meet the mission requirements of the NOAA Corps. Likewise, there is relatively strong competition among recruits for the available billets, meaning that the NOAA Corps is an attractive organization for a career. The reasoning then follows that in terms of having higher order needs, the NOAA Corps officer typically requires more from an assignment to meet and satisfy personal needs and expectations. An assignment that provides an officer with the variety, autonomy, task identity and feedback to incentivize motivation, increase job satisfaction, and improve performance.

A. SPECIFIC SATISFACTIONS

1. Job Satisfaction

In the research conducted by Hackman and Lawler (1971), four specific job satisfaction items were found to be most strongly related to the four core dimesions of variety, autonomy, task identity, and feedback. These items are:

1. The opportunity for independent thought and action in my job.
2. The feeling of worthwhile accomplishment in my job.
3. The opportunity for personal growth and development in my job.
4. The self-esteem and self-respect a person gets from being in my job.

[Ref. 6: p. 274]

The four items least strongly related to the four core dimensions are:

1. The pay for my job.
2. The opportunity to develop close friendships in my job.
3. The opportunity for promotion.
4. The amount of self-respect and fair treatment I receive from my boss.

[Ref. 6: p. 274]

How these two groups of related, and weakly related items can be classified are: (1) related items are higher order needs and (2) weakly related items are lower order needs. As discussed in Chapter II, Maslow indicated an individual does not move to higher levels of need satisfaction without fulfillment of lower order needs. Maslow's theory of higher order and lower order need-satisfaction supports the results of this study.

Satisfaction with pay is extremely low for the O-1's (14.3%) and satisfaction with promotion is low for the grades of O-1 to O-5 (0.0% to 33.3%). An officer cannot focus on being an effective contributor to the organization, when basic needs are not met. This is particularly true in the junior ranks. This data is substantiated by Hughes (1973) in discussing status and promotion.

> The importance of status to job satisfaction, although extrinsic, is crucial. Military rank is simply a visualization of the military structure and is an effective method of creating within an individual a feeling of self-worth and self-respect. [Ref. 27: p. 160]

Rank as a determinant of status is clearly shown at the grades of O-1 and O-2. However, while the grades of O-3 through O-5 are also dissatisfied with the rate of promotion, increasing levels of satisfaction with status are seen in the responses with increasing rank. Additionally, while the study did not specifically test for "the level of respect and fair treatment I get from my boss," many junior officers wrote comments to the effect that they have witnessed, or experienced the lack of impartiality in senior officers in dealing with junior officers.

This study of job satisfaction indicates that NOAA Corps officers in general have high expectations about a career in the NOAA Corps. Certain job factors are strictly rank dependent, others are relevant to all NOAA Corps officers. As the Harris and Eoyang (1977) model indicates, job satisfaction is an antecedent of career commitment. Rather than classify an officers level of job satisfaction, I feel it is more constructive to examine the intervening variables that lead to career commitment.

2. Commitment

As the discriminant analysis indicated, Q43 (Grade) consistently had high discriminating power to predict commitment. This is consistent with other research where age and tenure are both positively related to commitment [Ref. 28,: pp. 1-14]. Alternatively, research has also shown that as age and tenure in the organization

increases, the individual's opportunity for employment becomes more limited [Ref. 25: p. 30]. The decrease in options can in effect create a positive psychological attachment as the result of longevity. Commitment has also been shown to be positively related to achievement motivation, sense of competence and higher order needs [Ref. 17: p. 47]. Commitment can be a function of a combination of opportunity, vested interests, or as Mowday et al. (1982) explains

> An exchange relationship develops between the individual and the organization in which commitment attitudes are "exchanged" for desirable outcomes for the employee. [Ref. 25: p. 34]

B. SIGNIFICANCE TO THE NOAA CORPS

Rank, tenure, and age can explain commitment to a career in the NOAA Corps. However, these variables cannot predict active commitment to the organization which is seen between the grades of O-1 and O-2, but is much more evident between the grades of O-1 and O-3. The grade of O-3 clearly signifies the point where career decisions are made as indicated by the response to Q36 "Retirement--Separation Plan." And as Q36 demonstrates, no O-4's through O-6's indicated leaving the NOAA Corps before 20 years of service.

Given the low satisfaction level of the O-1's and O-2's, as well as the below average level of satisfaction in the grades of O-3 and O-4, what is influencing the stability in personnel retention that the NOAA Corps is currently experiencing?

In reviewing the literature on commitment, Steers and other researchers have found that work experiences were more closely related to commitment than personal job characteristics. It was also found that there is a weak relationship between performance and commitment. [Ref. 17: p. 47]

In terms of the NOAA Corps, the work of these researchers can be used to explain what would be considered counter intuitive statements. First, the work experience of the NOAA Corps is by far one of the most unique careers one could have. The potential to experience new challenges is only limited by the personality and ability of the individual officer. This aspect of challenge and the desire for responsibility in the NOAA Corps officer is corroborated by the overall agreement to Q25 "Job Responsibilities Challenging" (84.7%). Secondly, commitment to the NOAA Corps doesn't necessarily mean high performance. One would hope that this is the exception rather than the rule. Still, in a stable, non-threatening environment, high

performance can be less role relevant, particularly where security is not a concern. Overall, only 38.1% of the NOAA Corps officers are concerned with job security, a statistic which leads one to believe that few officers are simply biding time toward retirement. Commitment to the NOAA Corps is driven by characteristics of the job, versus an officer's concern to fulfill personal need-satisfactions. When a lack of concern for job security is present, it is possible that the majority of officers feel the NOAA Corps provides a stable and safe employment environment. It may also signal that selection for involuntary separation is perceived to be absent, thereby indicating job security would not be a major concern with officers.

C. DISCUSSION OF FREE FORM COMMENTS

Of the 319 questionnaires returned, 121 respondents utilized the opportunity to express additional comments about this study and other related items. Responses went from one line in length to three typed pages and these comments were received from all ranks. In general, it was evident that a lot of thought and honest feelings were expressed. Many comments expanded on questions in the survey, many which confirm this study's analysis.

Aside from these responses one particular item presented some disconcerting feelings. That was, the lack of belief by a minority of officers that the raw survey data would not be kept confidential and in fact, turned over to NOAA Corps Commissioned Personnel Division (NC1), or the Director of the NOAA Corps (NC). This contrasted with a group of officers who chose to identify themselves on the survey. Most officers concerned with confidentiality declined to respond to all, or left off part of the demographic data, which were essential for the analysis. It can only be concluded that trust is an attribute that is problematic. The following discussion then, is a synopsis of the more salient and representative opinions expressed in the comments section.

1. Promotions

More than any other item, the topic of promotions was raised most often. However, this topic goes much deeper in that it was not the lack of promotions, but the administrative policies and processes of the NOAA Corps surrounding promotions. Politics was one of the buzz words that was used continually, whether it was concerning the Officer Assignment Board, Officer Personnel Board, awards, advanced standing, promotions, NC1, or NC.

The word "politics" apparently was used in a negative tone. But what many officers fail to realize is that no organization is free from politics. Even where decision making is accomplished by a consensus, politics still exist. Politics is necessary if an organization is to accomplish its goals. However, the potential exists to use politics for parochial interests.

What the free form comments expressed, is that there is complete lack of understanding how the NOAA Corps is currently functioning administratively. This is particularly true in the junior ranks. As this study has demonstrated, it has been the lack of communication and feedback, at all supervisory levels, that has caused this breakdown. Whether or not a breakdown really exists or not is immaterial, it is the perceived attitude, by all ranks, that information about the NOAA Corps is not adequately disseminated.

2. Career Planning and Counseling

Career planning and career counseling is ostensibly tied to leadership. Many junior officers, as stated previously, aren't integrated or "socialized" into the NOAA Corps beyond their first tour at sea. This lack of integration is best summarized in the following response.

> The NOAA Corps has an "identity" problem. We are not sure just exactly what we are. Are we Military? Scientists? Managers? Sailors? Airmen? We are too diverse spatially and professionally to figure out exactly who we are. Ask anyone in the Army (a doctor or supply clerk--anybody) what their primary function is in their job and they will probably say, "To defend my country," or something like that. NOAA Corps officers would not be nearly so uniform when asked the same question. NOAA Corps management needs to make the Corps more cohesive while at the same time preserving enthusiasm, variety, and freshness in the attitude of individual officers--a big job!

The aspect of poor career planning and integration into the NOAA Corps stems from the NOAA Corps functioning in 1986 with USC&GS Corps personnel management policies. The NOAA Corps has clearly evolved into a much more diverse agency than the USC&GS Corps. The following response typifies this evolution and the confusion that exists within many officers as to their role in the NOAA Corps.

> I feel that the biggest problem with the NOAA Corps is inconsistency. This is evident throughout the organization in attitudes, relations, and assignments. Senior officers have lower standards of performance, dress, and motivation than that expected of JO's; men treated differently than women, pilots differently than everyone, married differently than single, biologists differently than engineers, etc. This alone does not bother me, it is this action combined with the never ending statements by senior people "claiming" that everyone is treated the same.

Historical management practices can not function effectively in the changing environment the NOAA Corps meets daily in 1986. The NOAA Corps of 1986 and the future will be a function of leadership. To demonstrate the need to have leadership that can effect positive change and instill positive attitudes in junior officers, compare the following statements from two senior officers. Clearly two management and leadership styles are evident.

> In most cases job satisfaction depends as much on yourself as on the supervisor or organization. You must "commit" yourself to the job when things are not going well, just as much as when everything is okay--it's your responsibility. My career has been exciting with a lot of variety due in large part to my "communicating" with my supervisors / NOAA Corps Personnel / Director. Keep an open door with subordinates and superiors. Try to be flexible regarding assignments--that's what the NOAA Corps is all about. It's not a civilian job!

Versus:

> Nobody gives you a damn thing--you get out what you put in. The Corps is a highly mobile service and it's about time the officers recognized that!

3. Fitness Reports

Given the weight fitness reports (FITREP) have on an officer's career, many officers expressed dissatisfaction with the performance appraisal system. This dissatisfaction is nothing new, but as one officer responded

> Job satisfaction, promotion, and one's career are intimately tied to the FITREP system. This is presently subjective, subject to intentional, or unintentional abuse, and is relatively uncontrolled, . . . much of job satisfaction and lack there of is directly related to the perceived fairness of our FITREP system.

The problem with the fitness reports system is measuring and evaluating performance of an individual against one's peers, in an organization that is as diverse in its work as the officers are geographically. Perhaps the source of the problem lies with the evaluators, NOAA Corps officers and NOAA civilians. Commander Albert Theberge, NOAA addressed this issue in his masters thesis in 1979 at the Naval Postgraduate School, Monterey, California. His comments and recommendations reiterate many of the same findings of this thesis. Namely, that communication in the evaluation and performance appraisal process for commissioned officers is lacking. As Commander Theberge stated

> Management by objectives (MBO) is specifically designed to increase communication between individuals throughout an organization by requiring that superior and subordinate confer to formulate and agree upon specific attainable performance objectives for the subordinate at the beginning of the rating period. At the end of the rating period, the rater evaluates the subordinate on how well he has attained the agreed upon objectives. MBO is of particular value to organizations within a dynamic environment (rapidly changing technology, or rapidly changing organizational structure), or for evaluating subordinates in relatively unstructured assignments such as laboratory assignments, management positions, and many staff positions. [Ref. 29: p. 111]

4. **Billets, Rank, and Responsibility**

A variety of responses discussed these subject areas with dissatisfaction centering on two points. First, rank is still the overriding factor in the assignment process. The frustration that was expressed was increasing levels of job responsibility are not available to officers who do not have rank, yet who possess the expertise and ability to hold more responsible positions. As two officers stated

> If you are assigned the duties of a professional in accordance with your experience, the number of stripes doesn't matter. . . . A large portion of billets are being assigned to senior grade officers, yet they only require junior officers.

Secondly, middle grade officers indicate that more effort should be exercised by NC and NC1 to obtain supervisory positions (O-4 and above) outside charting. The NOAA Corps should be provided the opportunity to expand career paths. It was suggested that if the Administrator of NOAA supports the NOAA Corps, his influence should be exercised to confront civil service resistance to integrating NOAA Corps officers into NOAA staff positions.

Presently, ambitious officers seeking responsibility and challenge are not given billets because of rank. What needs to be examined here is not the short-term effect, but the long-term effect of such a policy. If an officer is not provided the opportunity to hold progressively responsible positions, where are the personnel and management skills acquired for future assignments? The ability to be a leader is an attribute developed through training and experience, and not something that is acquired by position.

In approximately 5 years, the NOAA Corps is going to begin to experience the results of the current rank versus billet policy, where there will be a shortage of "qualified" program managers and shipboard administrators. Compared to military officers, the NOAA Corps lacks a training program to develop and train junior officers

to assume positions of responsibility. This does not apply to the entire NOAA Corps, but the officers who do receive guidance, career planning and leadership training are a minority.

5. **Sea duty**

Sea duty and the issue of equity of time at sea continues to be a source of misunderstanding. Comments on this subject speak for themselves.

> What ever happened to the "common" denominator called sea duty. It appears to me that we have a land based Corps and a sea-going Corps. I happen to be a member of the latter group. I expect honesty and integrity from our flag officers, unfortunately I have observed nothing much in this regard.

> I believe inequity exists in our system of evaluating sea duty. Perhaps this is a misconception on my part. If so, it requires clarification. {In reference to 250+ days in Alaska away from home port} . . . . Why should sea assignments like those described above, be considered as the officer being in Seattle and preclude assignments there? . . . Where is the reward for officers assigned to such a schedule. . . . Let's put some real meaning in the term "arduous sea-duty."

> I do not understand the disproportionate amount of sea time some officers have. I have met some O-4's on their fourth sea assignment and others on their second. Sea assignments are difficult for family men and women, but this should be borne equally by all Corps members.

Observations such as the last one, by a junior officer, reinforces the notion that sea duty is not a common denominator for all NOAA Corps officers. Most of all it signals that there are selective career paths to minimize sea duty. The perceived situation that currently exists is that there are individuals who do not rotate to sea on a regular basis. If this assignment process does in fact exist, and with the Office of Marine Operations (OMO) new standards for Commanding Officer, Executive Officer, and Operations Officer, in the future, the NOAA Corps will develop a core group of officers who sail more than others by virtue of the fact that they have acquired the qualifications from having more underway time. As the previous comment stated, "where is the reward for officers assigned to such schedules?"

6. **Geographic Relocation**

The importance to a career of making geographic relocations for assignment purposes does not have a strong following in the NOAA Corps (53.8% agreement). While many officers commented that they recognize the value of relocating, many felt moving should be a function of career path versus moving for the sake of moving. As one officer commented

When they say you've been in Seattle too long, does that mean, any assignment west of the Mississippi River? Does anyone in headquarters ever get told they've been in one place too long?

Clearly, it does not benefit the NOAA Corps to limit the experience of all officers to one area. But relocating should be inherently tied to assignments where there is an increase in responsibility and career development instead of moving just to occupy a different geographic billet.

V. RECOMMENDATIONS AND CONCLUSION

A. RECOMMENDATIONS

After reviewing the data and comments provided from the NOAA Corps Career Outlook Survey, the following recommendations are suggested for improving the NOAA Corps.

1. Recruiting

Recruiters, while doing an outstanding job, need to fully inform officer candidates about the NOAA Corps. Given that expectations are high in new officers, there should be as few surprises as possible when an officer reports aboard for the first sea tour. Recruiters need to create clear and realistic job and organization previews for applicants. Officer candidates need to be told that their primary function and duty is to develop into a competent deck officer, and not a scientist. While having an interest in shipboard operations benefits the ship, it is secondary to developing fundamental sea-going skills. Sea duty, family separation, and mobility must also be reinforced as an integral part of a career in the NOAA Corps.

2. Integration of Officers into the NOAA Corps

An officers first job experience is critical to career decisions. Efforts should be made to improve the quality of the early job experience. The leadership role of the Commanding Officer and Executive Officer, as well as being role models, is essential to an officer forming a psychological attachment to the NOAA Corps.

3. Career Counseling

Career counseling is particularly important early in an officer's career. I strongly feel this is the responsibility of the Commanding Officer and Executive officer. Commissioned Personnel Division can assist in this process, but they are is not a substitute for the personal one-on-one between senior and junior officers.

4. Performance Feedback

Officers at all grades indicate performance feedback is lacking. If for no other reason, feedback should be a prime concern for enhancing the effectiveness and productivity of the NOAA Corps. People need to know when they are not fulfilling what is expected of them, as well as when they are! A fitness report should not be a surprise to any officer, or looked upon with dread, if communication is an ongoing process.

5. Fitness Reports

The Fitness Report (NOAA Form 56-6) does not need to be changed, as much as the subjectivity of the evaluation does. The NOAA Corps needs to develop work standards for junior officers which develop into performance standards for senior officers, such as management by objectives (MBO). MBO is currently being used in the U. S. Coast Guard to eliminate subjectivity in performance evaluations, to establish the commands expectations of the officer, and to give the officer goals to achieve. If standards are a function of rank, clearly recognition, awards, promotions, and separations can be fairly assessed for all ranks when a standard is applied. The Officer Personnel Board needs to evaluate Fitness Reports, within peer groups, for tangible accomplishments, as well as, progressive levels of assignment responsibility. The NOAA Corps also needs to recognize that research oriented careers contribute as much as traditional hydrographic careers.

Along those same lines, officers evaluating performance need to be trained to maintain objectivity in evaluating what a person accomplishes, and not who he, or she may be. Mediocrity should not be rewarded; professional excellence and contributions to the NOAA Corps should be what is recognized by the organization.

6. Promotions, Separation, and Retirement

Promotions, separation, and retirement are the number one concern of the majority of NOAA Corps officers. The NOAA Corps needs to issue a policy statement as to when an officer can expect to be promoted given the current rate of promotion. Current promotion trends are indicated in Table 10.

NOAA Corps officers should be informed of the rate of promotion in order to make personal career decisions. The NOAA Corps has not promoted officers at the rate it did in the early 1970's for over 10 years, yet much of the discontent over promotions stems from the fact that many officers see past promotion policies as being in effect in 1986.

The NOAA Corps should publish an administrative policy on the "process" of promotion, passovers, and separations. Based on many of the responses there seems to be a lot of confusion, not about policy, but about the "process" by which certain individuals are promoted over others. Passovers, particularly in the junior ranks, are viewed as failure, yet undoubtedly all officers are not qualified for promotion at the same rate. As beneficial as the NOAA Corps new system of ribbons and awards is, it is unfortunate that nothing is prized more highly than the promotion. A statement

TABLE 10
CURRENT RATE OF PROMOTION

PROMOTION TO	YEARS OF SERVICE
Lieutenant (junior grade)	2
Lieutenant	6-7
Lieutenant Commander	12-13
Commander	18-20
Captain	22-23

from NOAA Corps senior management concerning what constitutes rewarding one individual over another could be extremely beneficial to alleviating the perceived mystery of promotion practices.

Separation of low performing officers without question needs to be more fully evaluated. Currently the perceived feeling is separation rarely, if ever, occurs after an officer has reached the grade of O-2. This clearly is not the sole function of the Officer Personnel Board (OPB). Rather it requires accurate and realistic input from the field, particularly input which identifies marginal performers. If the promotion system is to maintain integrity, and superior performers are to be rewarded, then marginal performers should not continue to move up in rank.

Most officers do not recognize that the promotion problems of today stem from the accelerated growth in the ESSA Corps and NOAA Corps during the late 1960's and early 1970's, which abruptly stopped in 1976. However, the past cannot be changed, the present and future are what is relevant. As Tables 6 and 7 indicate, with no change in current personnel management policies, promotions cannot get better for at least 5 years.

The NOAA Corps should institute a Captains Review Board to review a Captain's performance and level of job responsibility after 2 years in grade, and every 2 years thereafter. The most pertinent criteria of evaluation would be the level of professional development leading to the individuals capacity to make Admiral. This is the only functional way to get promotions moving again. It is also in the interest of

the NOAA Corps to create an environment where exceptional officers are motivated to stay past 20 years of service, where the opportunity exists to make the rank of Captain.

The preceding recommendations are all within the capacity of the NOAA Corps to change, some are relatively straight forward, others need careful consideration and strategic planning for the long range effectiveness of the NOAA Corps. It is the tough decisions that are the hardest to make, and that take the most courage to implement.

B. CONCLUSION

Despite the feelings of concern and dissatisfaction reported in results of this study, the majority of the NOAA Corps officers express that it's the challenge, variety, and uniqueness of the work that attracts them to a career in the NOAA Corps. No officer ever suggested the NOAA Corps was boring and as Q33 indicates, 90.1% of all the NOAA Corps officers "do" care about the future and direction of the NOAA Corps.

The issue that faces the NOAA Corps is, what policy changes can be enacted in the short and long term, that can instill confidence in the NOAA Corps officers that management does recognize problem areas exist. A sense of direction needs to be communicated to the NOAA Corps officers that embraces change, solid leadership and management policies which focus on the future and not the past.

Universal commitment to the NOAA Corps is unrealistic. But change needs to occur to energize a stable organization, to discourage membership of low performers, while providing incentives for high performing officers to dedicate themselves to their careers. No organization can grow without the input of new ideas and energy which is provided by upward mobility. If the NOAA Corps is to retain and invest resources in developing young officers, visible changes have to occur that demonstrate the NOAA Corps is committed to excellence. Career decisions are formed at a point early in an officers career. And early in a career, expectations, desire to assume responsibility, and take on challenges are high. The means to focusing this energy rests with the leadership of the NOAA Corps. Clearly a problem exists when junior officers, recruited for their technical competence, cannot define career paths or when sea duty is not considered by many officers as one of the primary, unifying aspects to a career in the NOAA Corps.

The problems and issues cited in this study cannot be changed overnight, nor should any change plan be enacted without a strategy that maximizes the benefit to the NOAA Corps. The focus of this study was on the officers of the NOAA Corps, only one aspect of the organization. But as stated in the Introduction the NOAA Corps officer is the most valuable resource the NOAA Corps has the capacity to manage. If senior management takes the lead to address some of the personnel management issues discussed, the result will be a NOAA Corps officer who is satisfied with their career. And the result of this will be an officer who is motivated and commited to the operational effectiveness and productivity of the NOAA Corps.

APPENDIX A

ENDORSEMENT

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Rockville, Md. 20852

NC1:ANF

July 23, 1986

TO: All NOAA Corps Officers

From: Captain Walter S. Simmons, NOAA
Acting Director, NOAA Corps

Subject: Endorsement of NOAA Corps Career Survey

The long-term effectiveness of the NOAA Corps depends upon the quality and commitment of its career personnel; therefore, we at headquarters are interested in a careful assessment of the career attitudes and perceptions of all NOAA Corps officers.

The enclosed survey is designed to obtain opinions about job satisfaction, promotions, and career plans from every NOAA Corps officer. The survey is part of a graduate thesis project undertaken by Lieutenant Patrick J. Rutten at the Naval Postgraduate School, Monterey, California. The results of this research project will be of particular interest to the Director, NOAA Corps and headquarters staff as we formulate policy to improve the quality of work life for all NOAA Corps officers.

I urge you to complete the questionnaire candidly and conscientiously as the validity of the results will depend upon full and honest participation by all NOAA Corps officers. I look forward to receiving the results and the recommendations of this project and expect they will contribute to the continued effectiveness and efficiency of the NOAA Corps.

APPENDIX B

QUESTIONNAIRE

NOAA CORPS CAREER OUTLOOK SURVEY

Please circle the number of your response to the following questions. Answers to the first 33 questions are to be based on the response scale of:

7 Strongly agree	3 Slightly disagree
6 Moderately agree	2 Moderately disagree
5 Slightly agree	1 Strongly disagree
4 Neutral	0 No opinion

1.	For me the NOAA Corps is the best of all possible organizations to work for.	7 6 5 4 3 2 1 0
2.	There is a lot for me to gain by making a career in the NOAA Corps.	7 6 5 4 3 2 1 0
3.	I feel that my career with the NOAA Corps is more interesting than other jobs I could get.	7 6 5 4 3 2 1 0
4.	I feel I could find another job as interesting and challenging as the NOAA Corps.	7 6 5 4 3 2 1 0
5.	I am concerned with job security in the NOAA Corps.	7 6 5 4 3 2 1 0
6.	I am satisfied with the present level of status my job has.	7 6 5 4 3 2 1 0
7.	I am satisfied with my present salary.	7 6 5 4 3 2 1 0
8.	I am satisfied with the educational and training opportunities available to me in the NOAA Corps.	7 6 5 4 3 2 1 0
9.	I feel it is important to my career to make geographic relocations for assignment purposes.	7 6 5 4 3 2 1 0
10.	I feel it is more important to specialize in one field, than it is for me to develop a diverse background in the NOAA Corps.	7 6 5 4 3 2 1 0
11.	The opportunity to have a lot of independent thought and action (autonomy) in an assignment is important to me.	7 6 5 4 3 2 1 0
12.	I prefer an assignment with a lot of management responsibilities.	7 6 5 4 3 2 1 0
13.	I prefer an assignment where I supervise people.	7 6 5 4 3 2 1 0
14.	I prefer an assignment that is strictly research oriented.	7 6 5 4 3 2 1 0
15.	I would not object to a TDY assignment, given on short notice, because one of the things I enjoy about the NOAA Corps is job variety.	7 6 5 4 3 2 1 0
16.	I would enjoy being called upon short notice to fill an assignment need, even if it meant a geographic relocation.	7 6 5 4 3 2 1 0

17.	There are definite assignments one must have had in order to move up in the NOAA Corps.	7 6 5 4 3 2 1 0
18.	The NOAA Corps makes it clear what assignments are necessary to move up in the NOAA Corps.	7 6 5 4 3 2 1 0
19.	Overall, the NOAA Corps makes an effort to assure that assignments are meaningful.	7 6 5 4 3 2 1 0
20.	Overall, the NOAA Corps adequately utilizes my abilities.	7 6 5 4 3 2 1 0
21.	My present assignment is rewarding to me personally.	7 6 5 4 3 2 1 0
22.	There are incentives for me to improve my job performance.	7 6 5 4 3 2 1 0
23.	I believe there is timely recognition of good performance in the NOAA Corps.	7 6 5 4 3 2 1 0
24.	Doing my job well leads to recognition and respect from my fellow officers.	7 6 5 4 3 2 1 0
25.	I believe my job responsibilities are challenging.	7 6 5 4 3 2 1 0
26.	I receive adequate feedback on my job performance.	7 6 5 4 3 2 1 0
27.	I feel I have opportunity for advancement in the NOAA Corps.	7 6 5 4 3 2 1 0
28.	I feel that my qualifications are given full consideration with respect to promotion.	7 6 5 4 3 2 1 0
29.	I feel that the best persons rise to the top in the NOAA Corps.	7 6 5 4 3 2 1 0
30.	I am satisfied with the promotion rate for myself during the last 5 years.	7 6 5 4 3 2 1 0
31.	I would advise friends of mine educated in science and mathematics to consider the NOAA Corps for a career.	7 6 5 4 3 2 1 0
32.	I prefer a career which provides for early retirement and allows me to establish a second career.	7 6 5 4 3 2 1 0
33.	I really care about the future of the NOAA Corps.	7 6 5 4 3 2 1 0
34.	My immediate supervisor discusses with me what I need to do to advance and achieve recognition in my present assignment: (7) every month (6) every 3 months (5) every 6 months (4) every 9 months (3) every 12 months (2) informally on occasion (1) never (0) no opinion	7 6 5 4 3 2 1 0

35. I believe the rate of promotions is going to get better in the NOAA Corps in: 7 6 5 4 3 2 1 0
(7) less than 1 year
(6) 1 year
(5) 2 years
(4) 3 years
(3) 4 years
(2) 5 or more years
(1) never
(0) no opinion.

36. My current intention is to separate or retire from NOAA Corps: 7 6 5 4 3 2 1 0
(7) at mandatory retirement age
(6) with 30 years service
(5) with 25 to 29 years service
(4) with 21 to 25 years service
(3) with 20 years service
(2) with 11 to 19 years service
(1) with less than 10 years service
(0) no opinion

37. How long do you think it would take you to find a job you would be satisfied with if you separate or retire from the NOAA Corps? 7 6 5 4 3 2 1 0
(7) 1 month (3) 3 years
(6) 6 months (2) 4 years
(5) 1 year (1) 5 years
(4) 2 years (0) no opinion

38. What do you think you could earn as an annual salary after separation or retirement from the NOAA Corps? 7 6 5 4 3 2 1 0
(7) more than $80K (3) $41 to 50K
(6) $71 to 80K (2) $31 to 40K
(5) $61 to 70K (1) $21 to 30K
(4) $51 to 60K (0) no opinion

39. Gender? (2) male (1) female 2 1

40. Age? 7 6 5 4 3 2 1 0
(7) 21 to 25 (3) 41 to 45
(6) 26 to 30 (2) 46 to 50
(5) 31 to 35 (1) 51 to 55
(4) 36 to 40 (0) 55 plus

41. Marital status? (2) single, separated, or divorced 2 1
(1) married

42. Age of dependent children? 4 3 2 1
(Circle more than one answer if applicable.)
(4) 5 years or less (2) 19 years or more
(3) 6 to 18 years (1) none

43. Grade? (6) O-6 & above (4) O-4 (2) O-2 6 5 4 3 2 1
(5) O-5 (3) O-3 (1) O-1

44. Years in present grade? . . . . . _____

45. Years of uniformed service in the NOAA Corps? . . . _____

46. Years of uniformed service in other than the NOAA Corps (i.e, years of military service)? . . . . . _____

47. Career orientation. 7 6 5 4 3 2 1 0
(Circle more than one answer if applicable.)
(7) Charting & Geodetic Services (hydrography, geodesy, etc.)
(6) fisheries
(5) oceanography (tides, currents, etc.)
(4) meteorology
(3) aviation
(2) marine operations
(1) administration
(0) other_____

48. Current assignment 3 2 1
(3) permanent sea duty
(2) temporary sea or shore (mobile) duty
(1) permanent shore duty

49. Current assignment location (i.e., your permanent duty station) 2 1
(2) east (of Mississippi River)
(1) west (of Mississippi River)

50. Geographic assignment location preference for permanent sea duty, or for temporary sea or shore duty. 2 1
(2) east
(1) west

51. Geographic assignment location preference for permanent shore duty. 2 1
(2) east
(1) west

52. Use the below space, or attach additional paper, for any comments you wish to make concerning your feeling about job satisfaction, promotions, your career in the NOAA Corps, or other subjects.

****
Return questionnaire to:
Lieutenant Patrick J. Rutten, NOAA
Post Office Box 8688
Monterey, CA 93943-0688
****

APPENDIX C
REQUEST FOR PARTICIPATION

Naval Postgraduate School
P.O. Box 8688
Monterey, CA 93943-0688

Date: July 23, 1986

To: All NOAA Corps Officers

From: Lieutenant Patrick J. Rutten, NOAA

Subject: NOAA Corps Career Survey

Enclosed is a questionnaire designed to survey all NOAA Corps officers regarding job satisfaction and commitment in the NOAA Corps. The data acquired will be utilized to fulfill my thesis requirement at the Naval Postgraduate School, Monterey, California.

The questionnaire is an opportunity for you to express your satisfaction or dissatisfaction with particular facets of the NOAA Corps. Note that the questionnaire addresses three areas: job satisfaction, promotion, and career plans. I hope to demonstrate, based on your responses, areas which could be considered for improvement by NOAA Corps management.

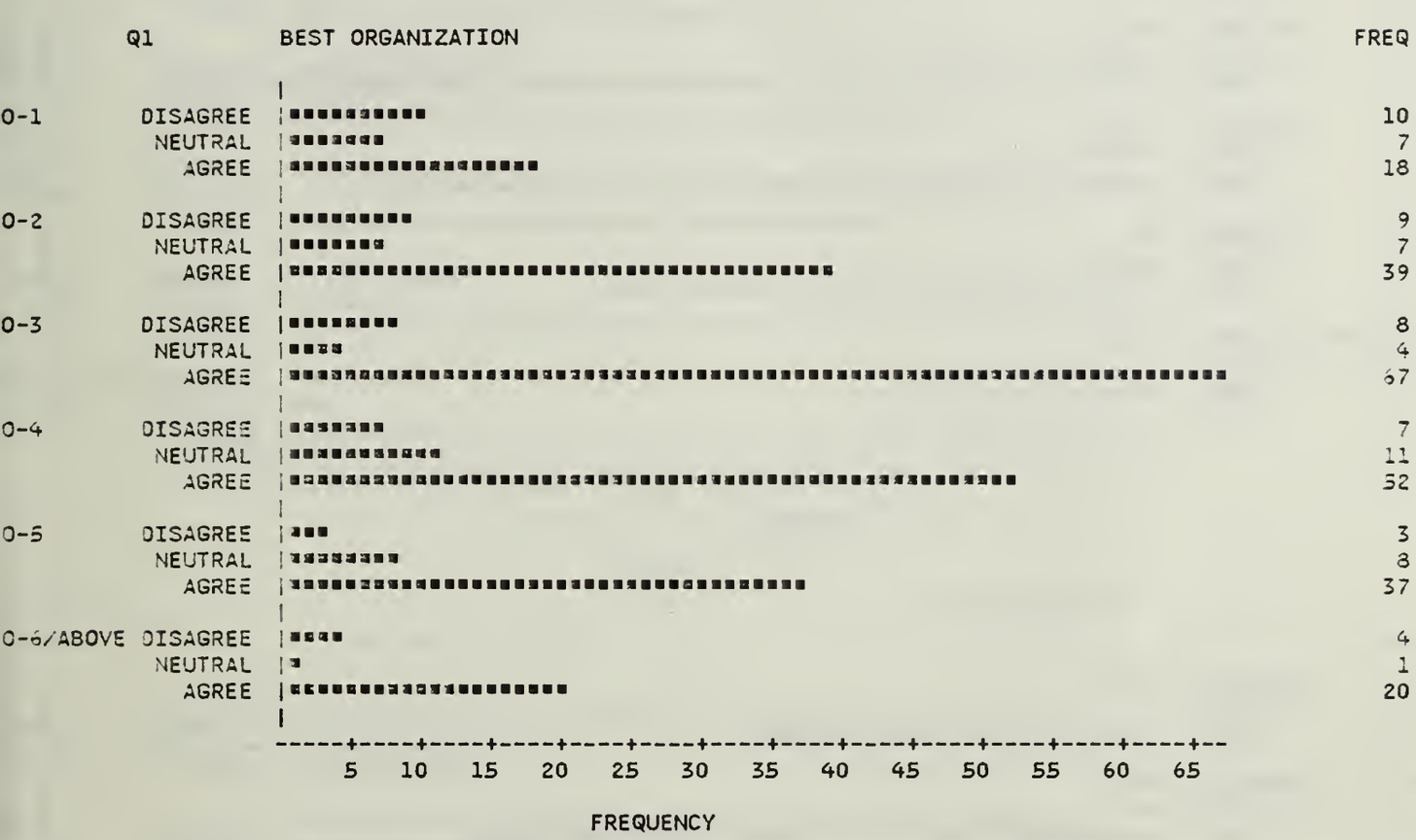
Completion of the questionnaire is voluntary, but I cannot accomplish this study without your participation. Also, I request that you do not identify yourself. All responses are strictly confidential. When the study has been completed, I hope to publish the summary information in the NOAA Corps Bulletin or the ACO Newsletter.

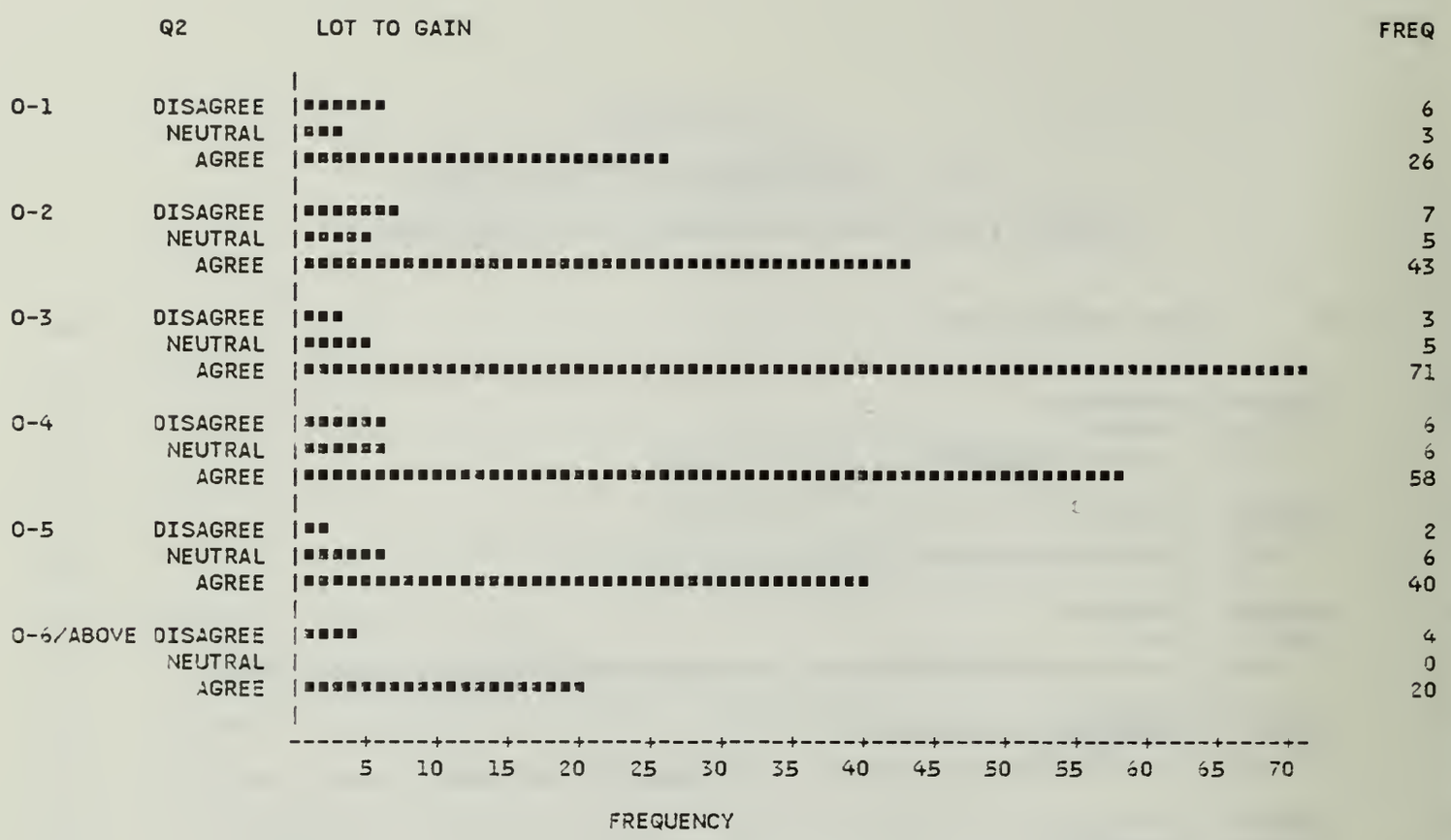
Please take a few minutes to complete the questionnaire and return it to me, by August 15, 1986. For officers in the field, please return the questionnaire as soon as possible. I can utilize any response that arrives by September 30, 1986. The success of the survey depends on your responses, please participate.

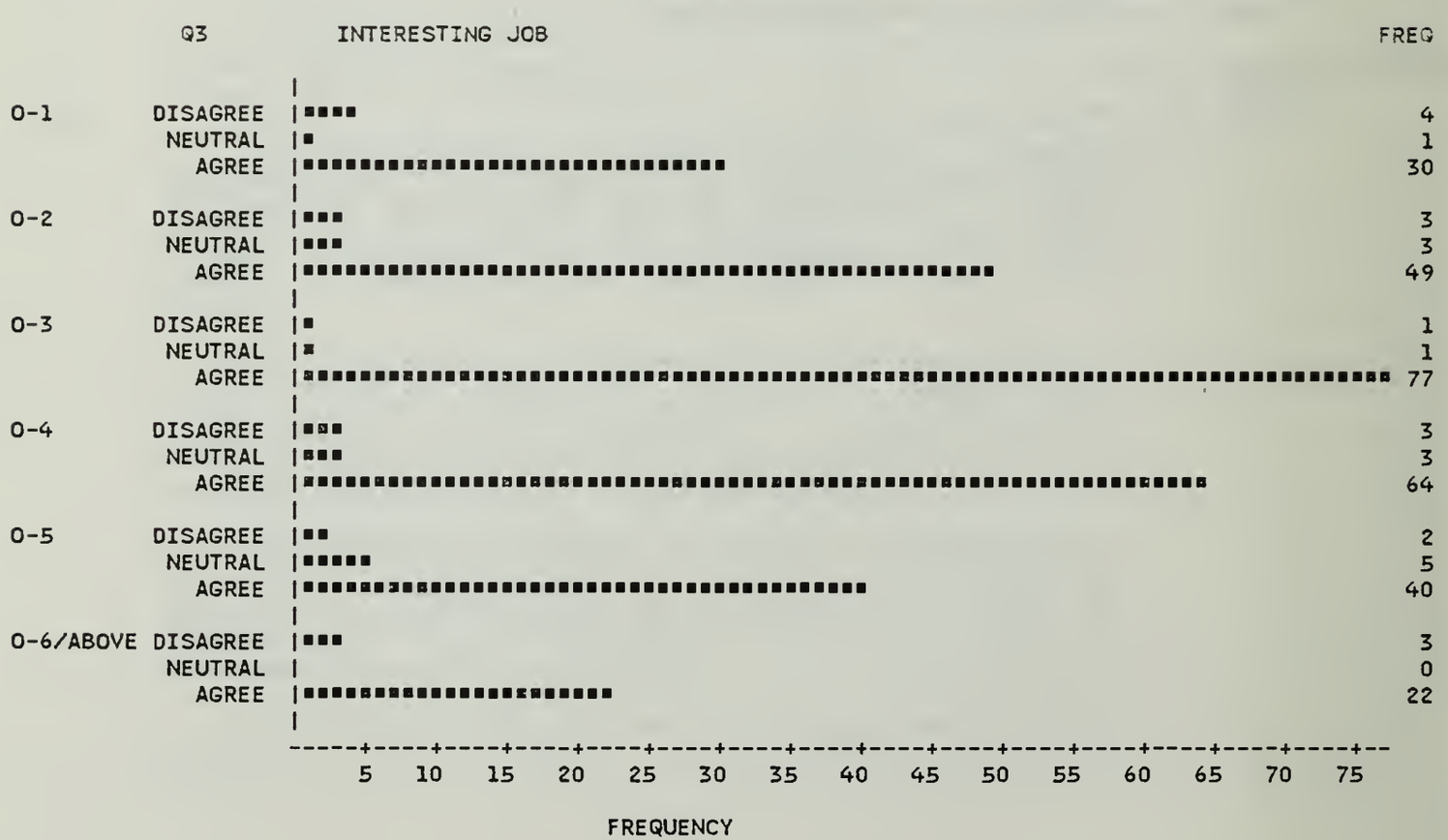
This survey, while endorsed by Captain Simmons, in no way reflects past, current, or future policy of the NOAA Corps.

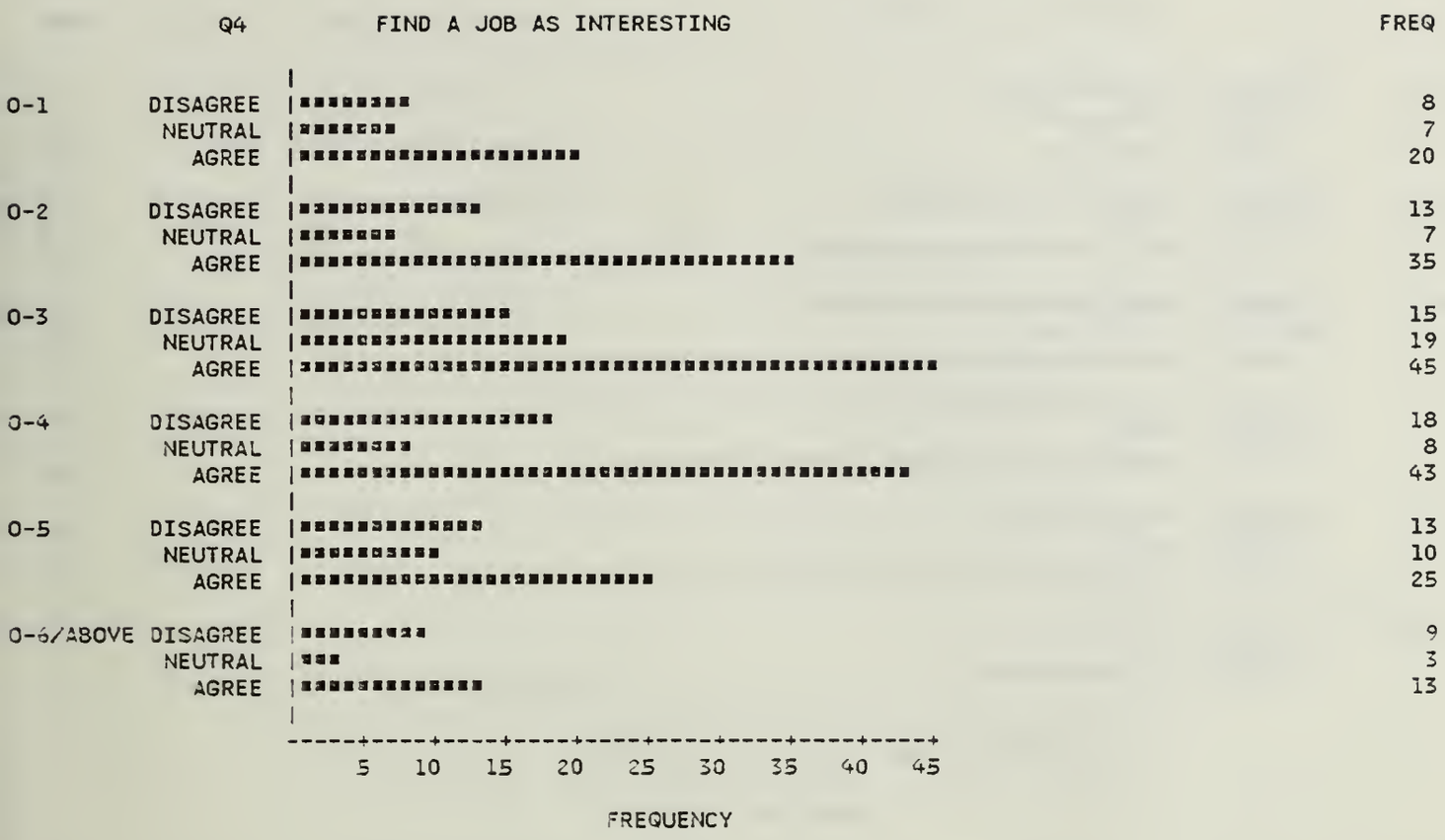
APPENDIX D

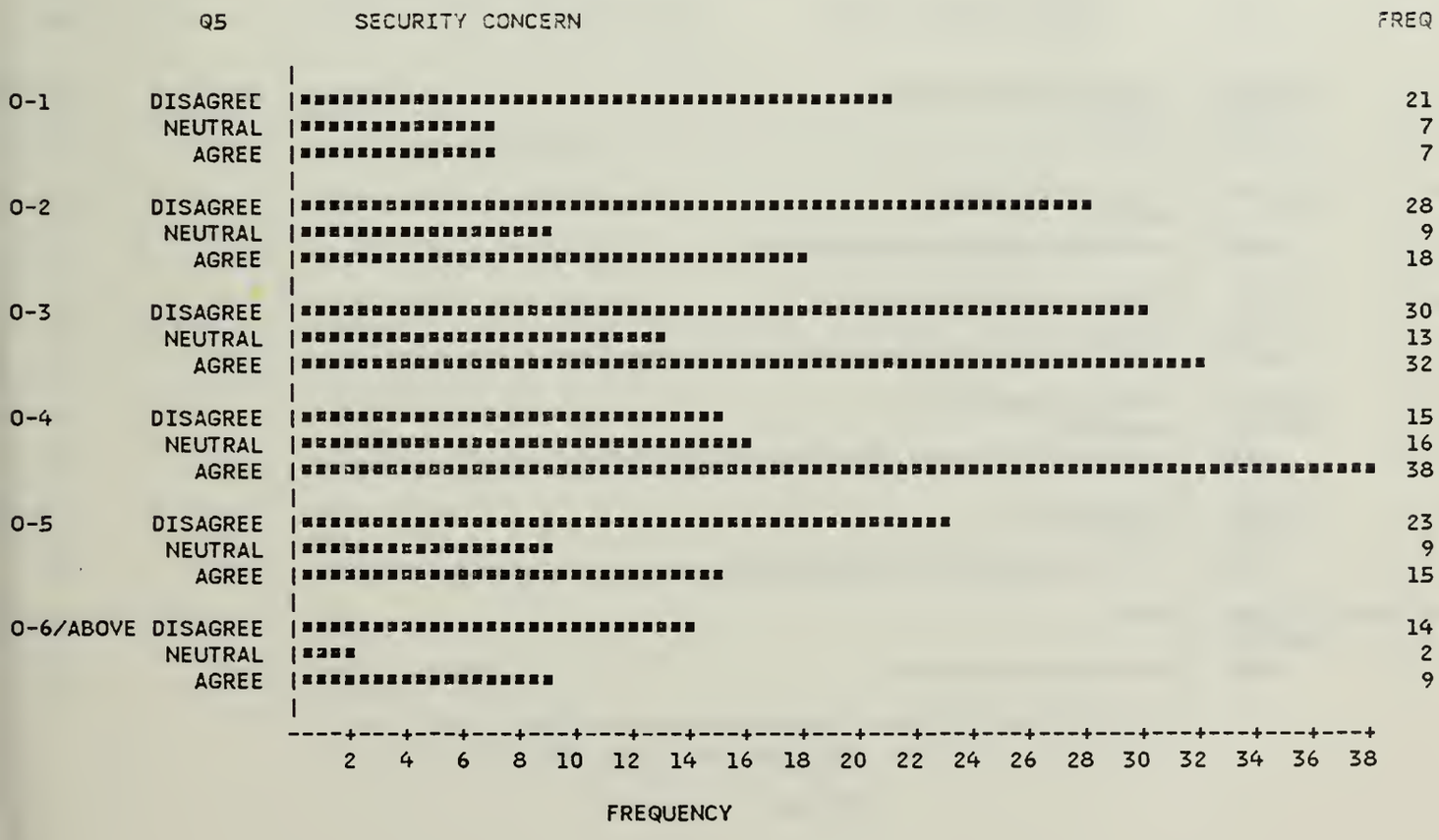
SURVEY RESULTS--GRADE BY QUESTION

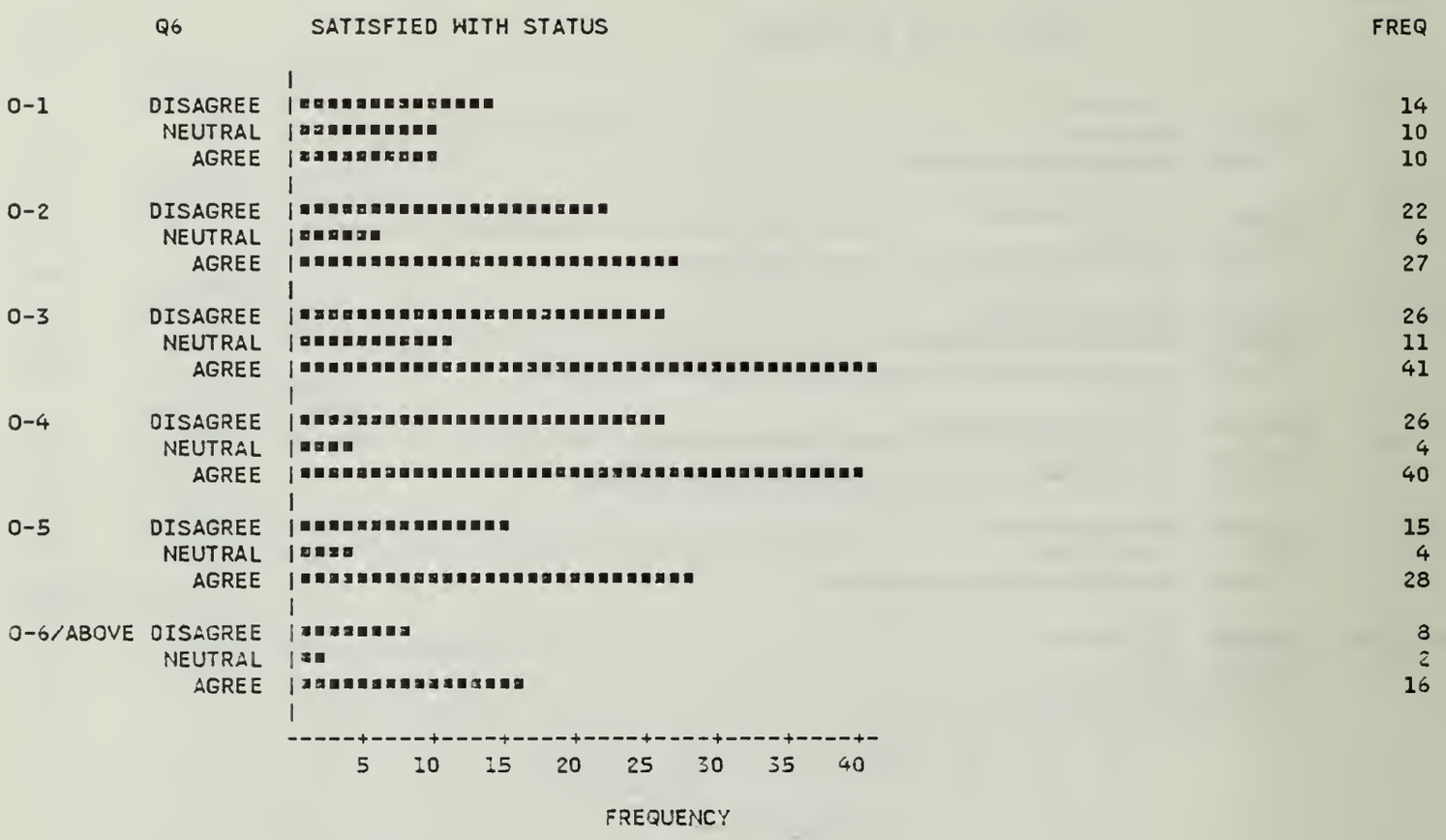


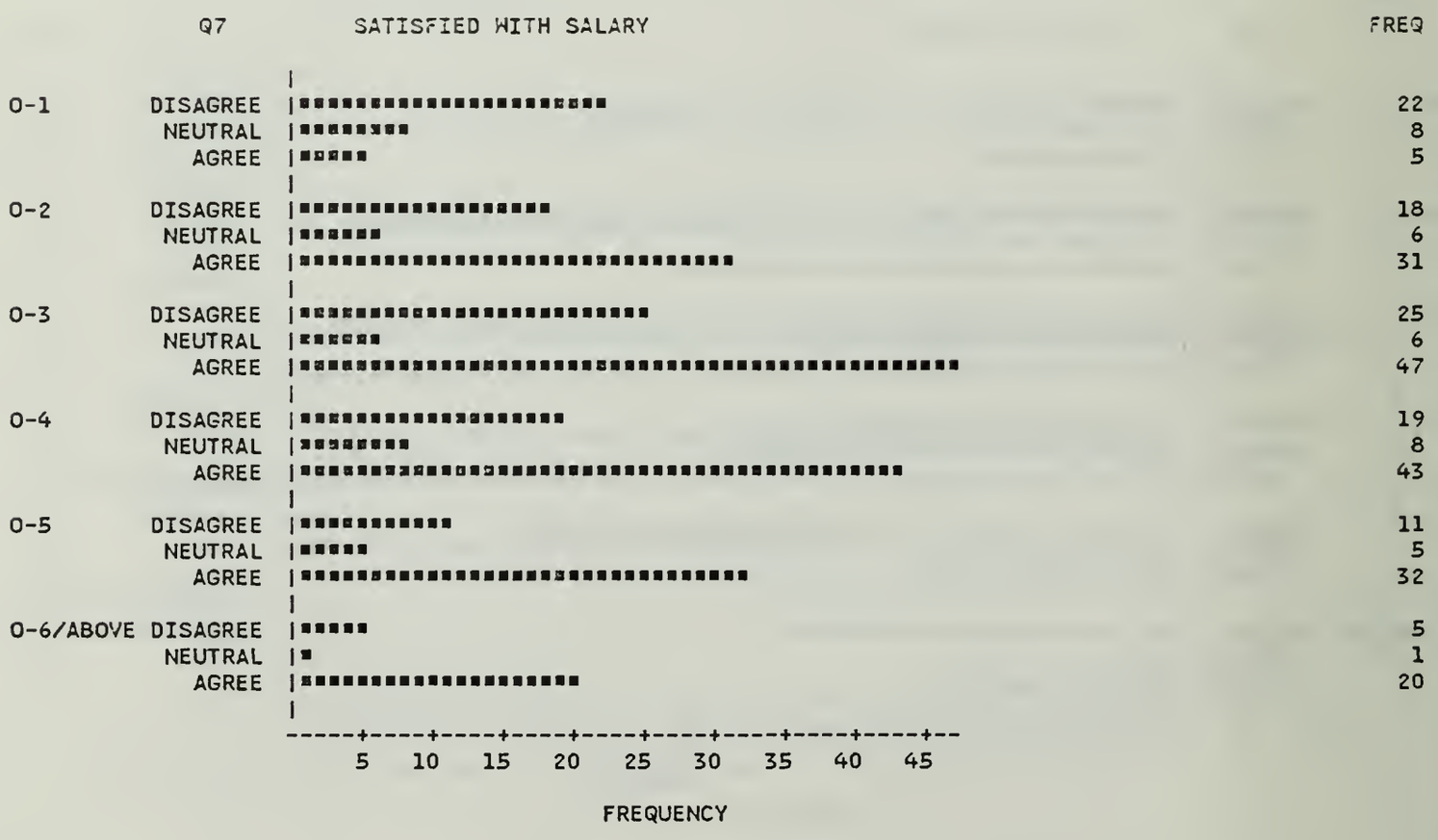

Q2 LOT TO GAIN FREQ
0-1 DISAGREE 6
NEUTRAL 3
AGREE 26
0-2 DISAGREE 7
NEUTRAL 5
AGREE 43
0-3 DISAGREE 3
NEUTRAL 5
AGREE 71
0-4 DISAGREE 6
NEUTRAL 6
AGREE 58
0-5 DISAGREE 2
NEUTRAL 6
AGREE 40
0-6/ABOVE DISAGREE 4
NEUTRAL 0
AGREE 20
5 10 15 20 25 30 35 40 45 50 55 60 65 70
FREQUENCY


Q3 INTERESTING JOB FREQ
0-1 DISAGREE 4
NEUTRAL 1
AGREE 30
0-2 DISAGREE 3
NEUTRAL 3
AGREE 49
0-3 DISAGREE 1
NEUTRAL 1
AGREE 77
0-4 DISAGREE 3
NEUTRAL 3
AGREE 64
0-5 DISAGREE 2
NEUTRAL 5
AGREE 40
0-6/ABOVE DISAGREE 3
NEUTRAL 0
AGREE 22
5 10 15 20 25 30 35 40 45 50 55 60 65 70 75
FREQUENCY

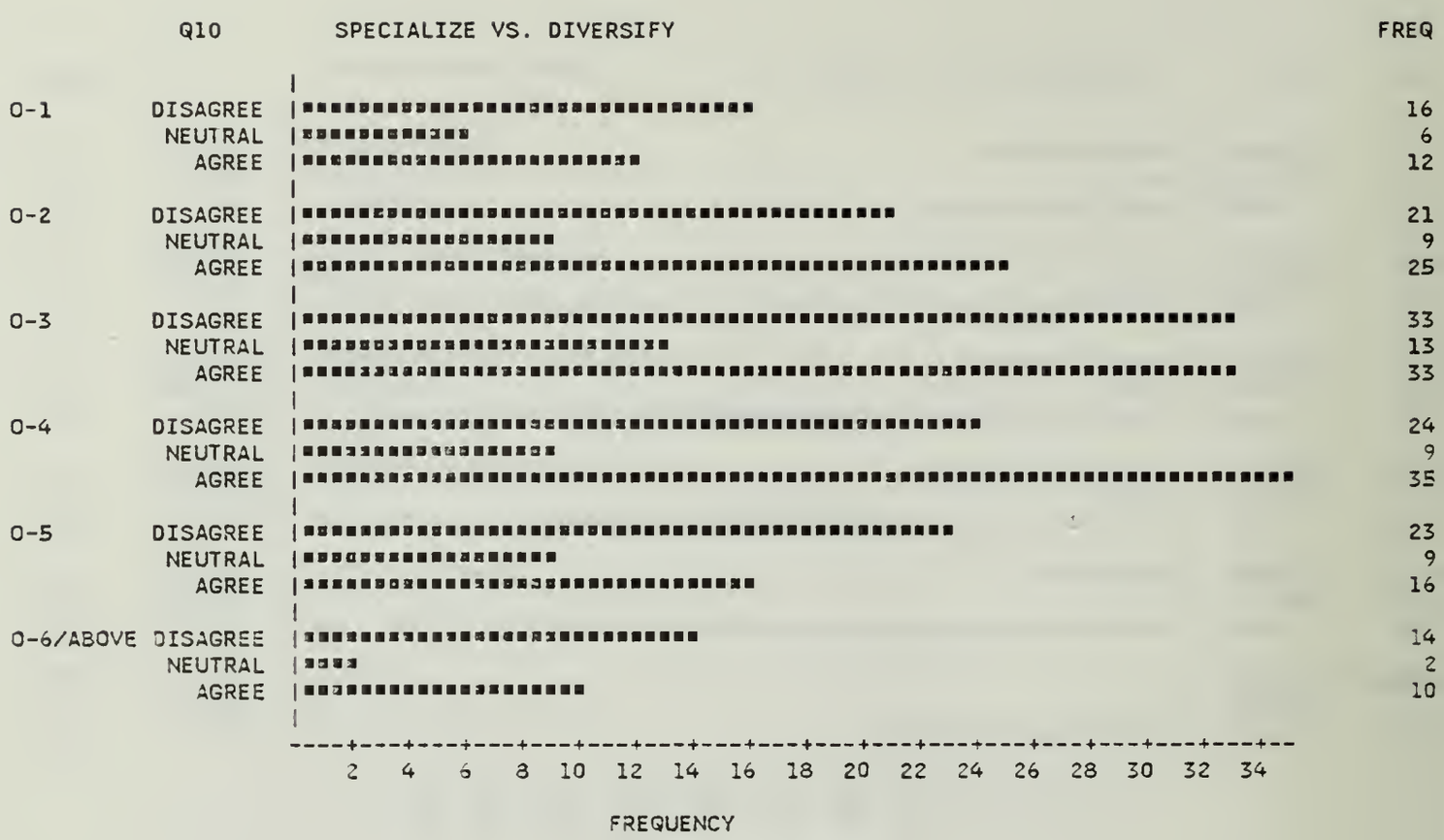

Q4 FIND A JOB AS INTERESTING FREQ
0-1 DISAGREE 8
NEUTRAL 7
AGREE 20
0-2 DISAGREE 13
NEUTRAL 7
AGREE 35
0-3 DISAGREE 15
NEUTRAL 19
AGREE 45
0-4 DISAGREE 18
NEUTRAL 8
AGREE 43
0-5 DISAGREE 13
NEUTRAL 10
AGREE 25
0-6/ABOVE DISAGREE 9
NEUTRAL 3
AGREE 13
5 10 15 20 25 30 35 40 45
FREQUENCY

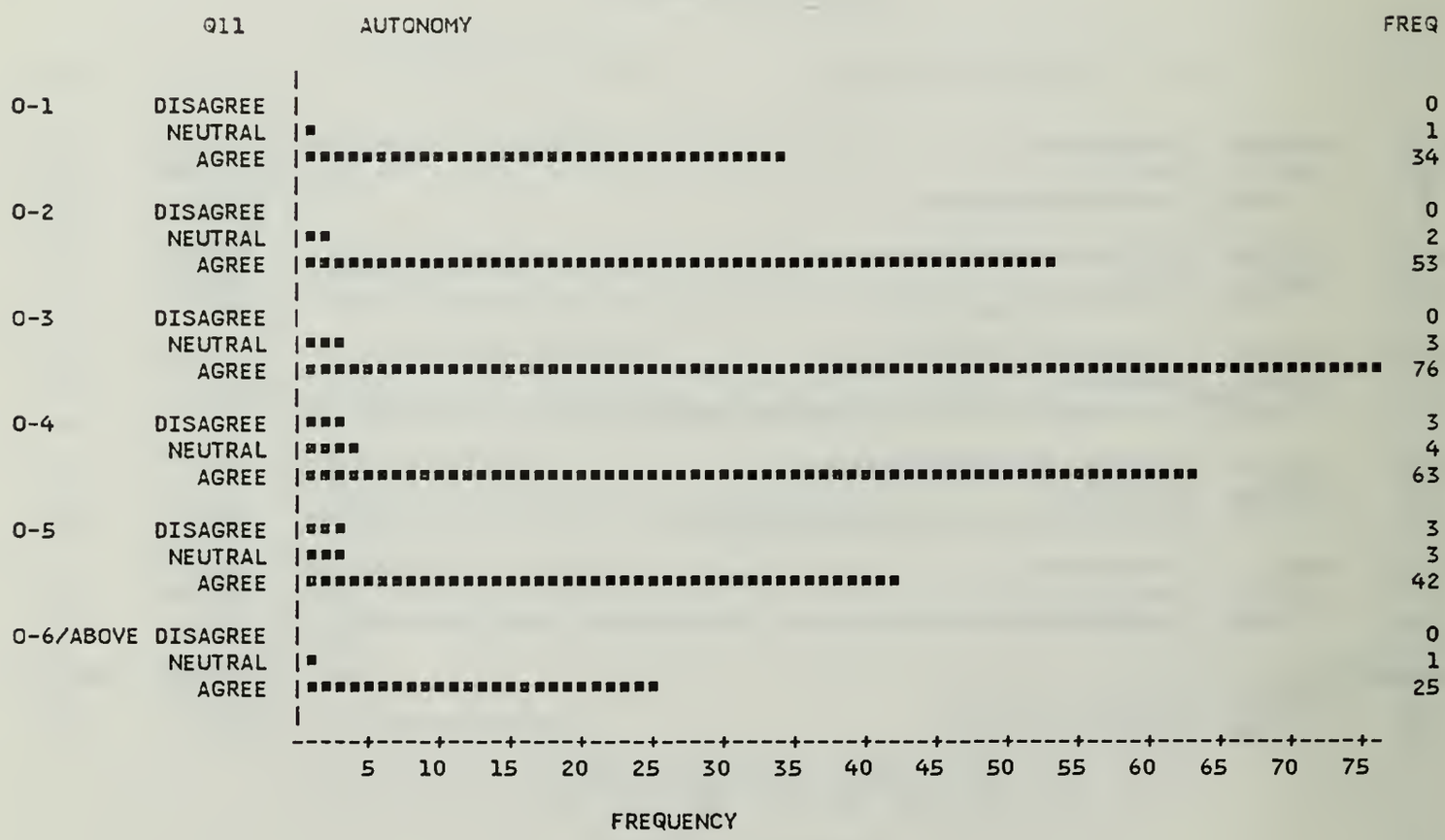

Q5 SECURITY CONCERN FREQ
0-1 DISAGREE 21
NEUTRAL 7
AGREE 7
0-2 DISAGREE 28
NEUTRAL 9
AGREE 18
0-3 DISAGREE 30
NEUTRAL 13
AGREE 32
0-4 DISAGREE 15
NEUTRAL 16
AGREE 38
0-5 DISAGREE 23
NEUTRAL 9
AGREE 15
0-6/ABOVE DISAGREE 14
NEUTRAL 2
AGREE 9
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38
FREQUENCY

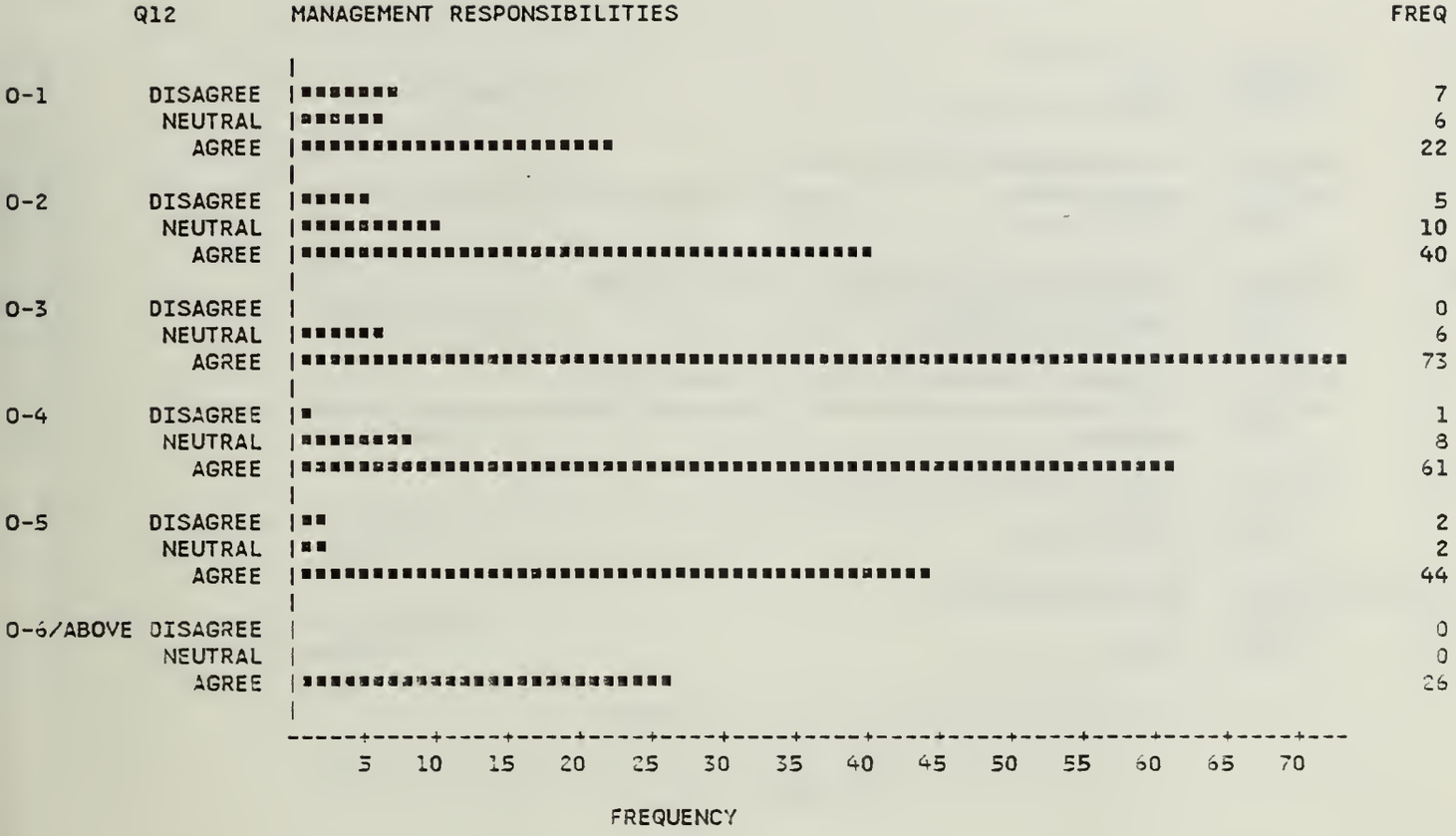

Q6 SATISFIED WITH STATUS FREQ
O-1 DISAGREE 14
NEUTRAL 10
AGREE 10
O-2 DISAGREE 22
NEUTRAL 6
AGREE 27
O-3 DISAGREE 26
NEUTRAL 11
AGREE 41
O-4 DISAGREE 26
NEUTRAL 4
AGREE 40
O-5 DISAGREE 15
NEUTRAL 4
AGREE 28
O-6/ABOVE DISAGREE 8
NEUTRAL 2
AGREE 16
5 10 15 20 25 30 35 40
FREQUENCY

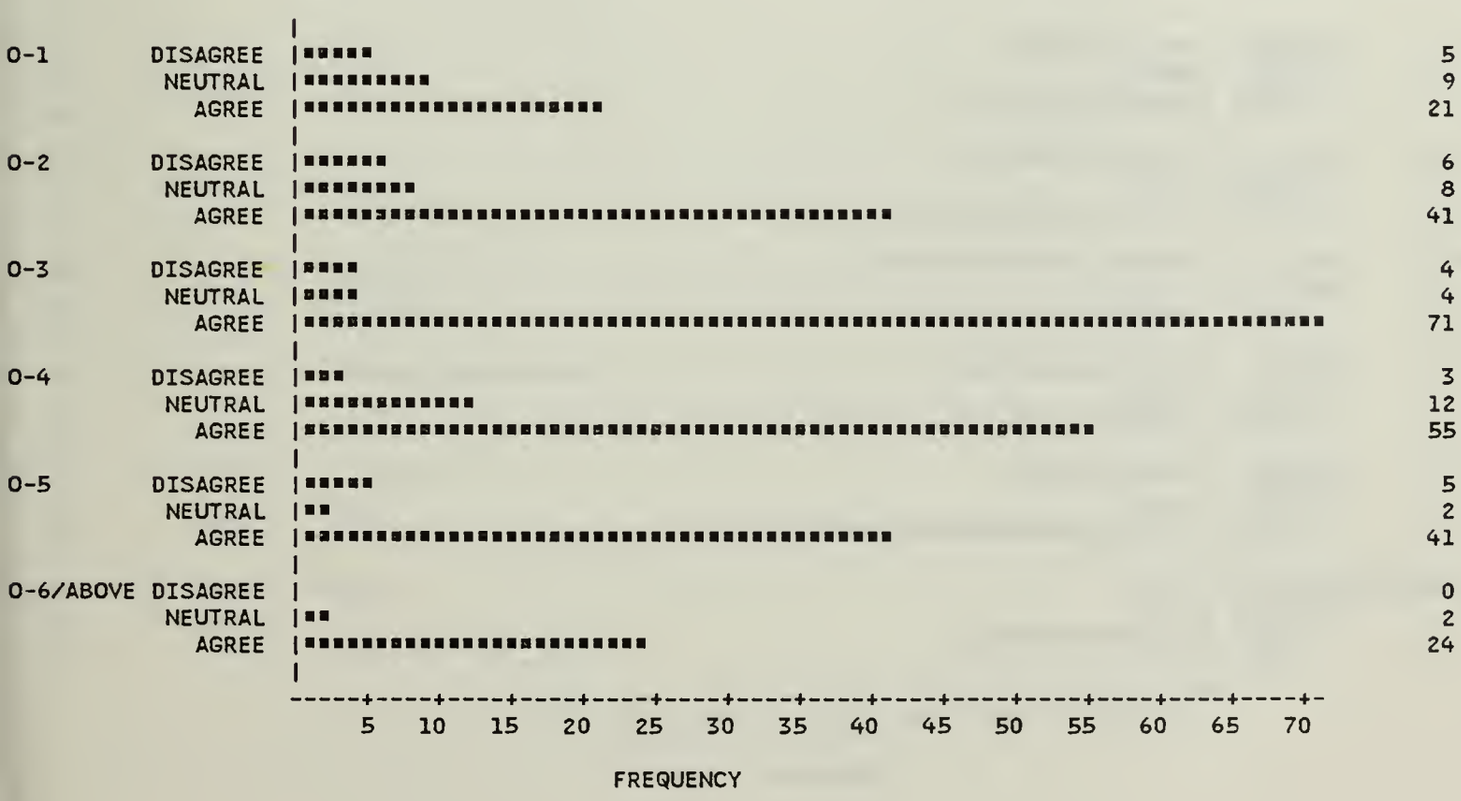

Q7 SATISFIED WITH SALARY FREQ
O-1 DISAGREE 22
NEUTRAL 8
AGREE 5
O-2 DISAGREE 18
NEUTRAL 6
AGREE 31
O-3 DISAGREE 25
NEUTRAL 6
AGREE 47
O-4 DISAGREE 19
NEUTRAL 8
AGREE 43
O-5 DISAGREE 11
NEUTRAL 5
AGREE 32
O-6/ABOVE DISAGREE 5
NEUTRAL 1
AGREE 20
5 10 15 20 25 30 35 40 45
FREQUENCY

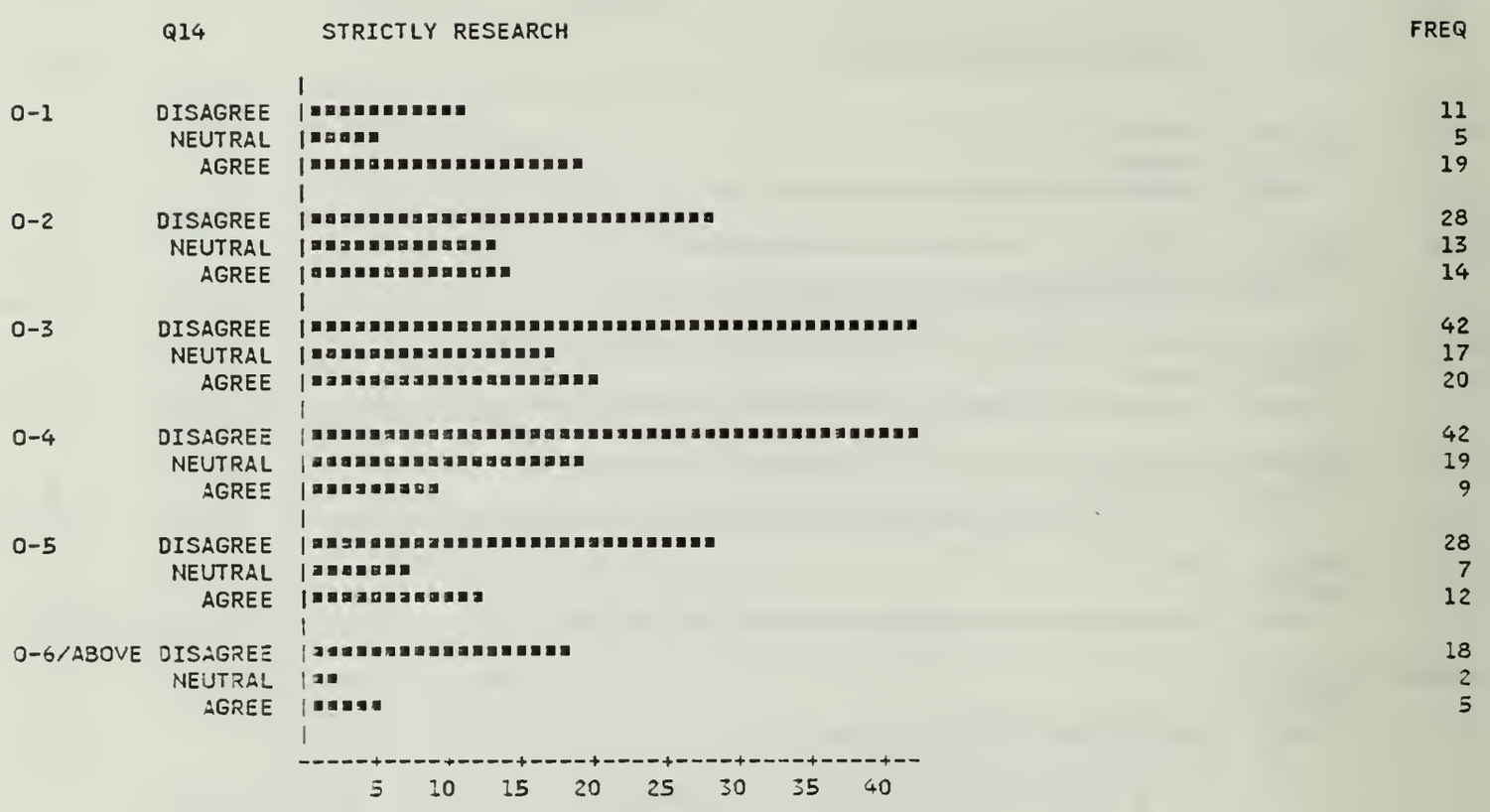
Q8	SATISFIED W/ ED. & TRAIN	FREQ
0-1 DISAGREE	■■■■■■■■■■■■■■■	14
NEUTRAL	■■■	3
AGREE	■■■■■■■■■■■■■■■■■■	18
0-2 DISAGREE	■■■■■■■■■■■■■■■■■■■■■	21
NEUTRAL	■■■	3
AGREE	■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■	31
0-3 DISAGREE	■■■■■■■■■■■■■■■■	16
NEUTRAL	■■■■■	5
AGREE	■■■■■■■■■■■■■■■■■■■


Q10 SPECIALIZE VS. DIVERSIFY FREQ
0-1 DISAGREE 16
NEUTRAL 6
AGREE 12
0-2 DISAGREE 21
NEUTRAL 9
AGREE 25
0-3 DISAGREE 33
NEUTRAL 13
AGREE 33
0-4 DISAGREE 24
NEUTRAL 9
AGREE 35
0-5 DISAGREE 23
NEUTRAL 9
AGREE 16
0-6/ABOVE DISAGREE 14
NEUTRAL 2
AGREE 10
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34
FREQUENCY

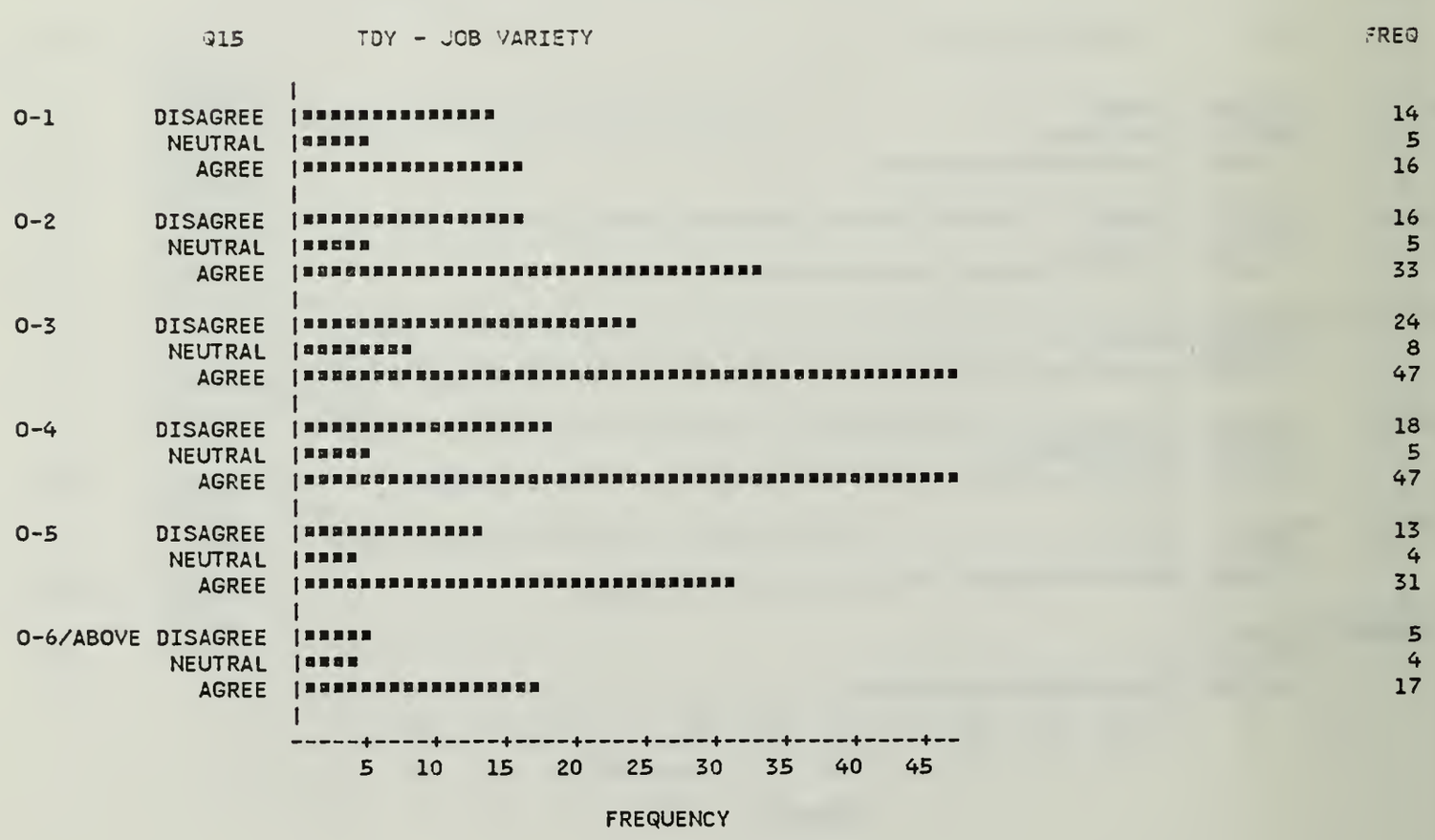

Q11 AUTONOMY FREQ
0-1 DISAGREE 0
NEUTRAL 1
AGREE 34
0-2 DISAGREE 0
NEUTRAL 2
AGREE 53
0-3 DISAGREE 0
NEUTRAL 3
AGREE 76
0-4 DISAGREE 3
NEUTRAL 4
AGREE 63
0-5 DISAGREE 3
NEUTRAL 3
AGREE 42
0-6/ABOVE DISAGREE 0
NEUTRAL 1
AGREE 25
5 10 15 20 25 30 35 40 45 50 55 60 65 70 75
FREQUENCY

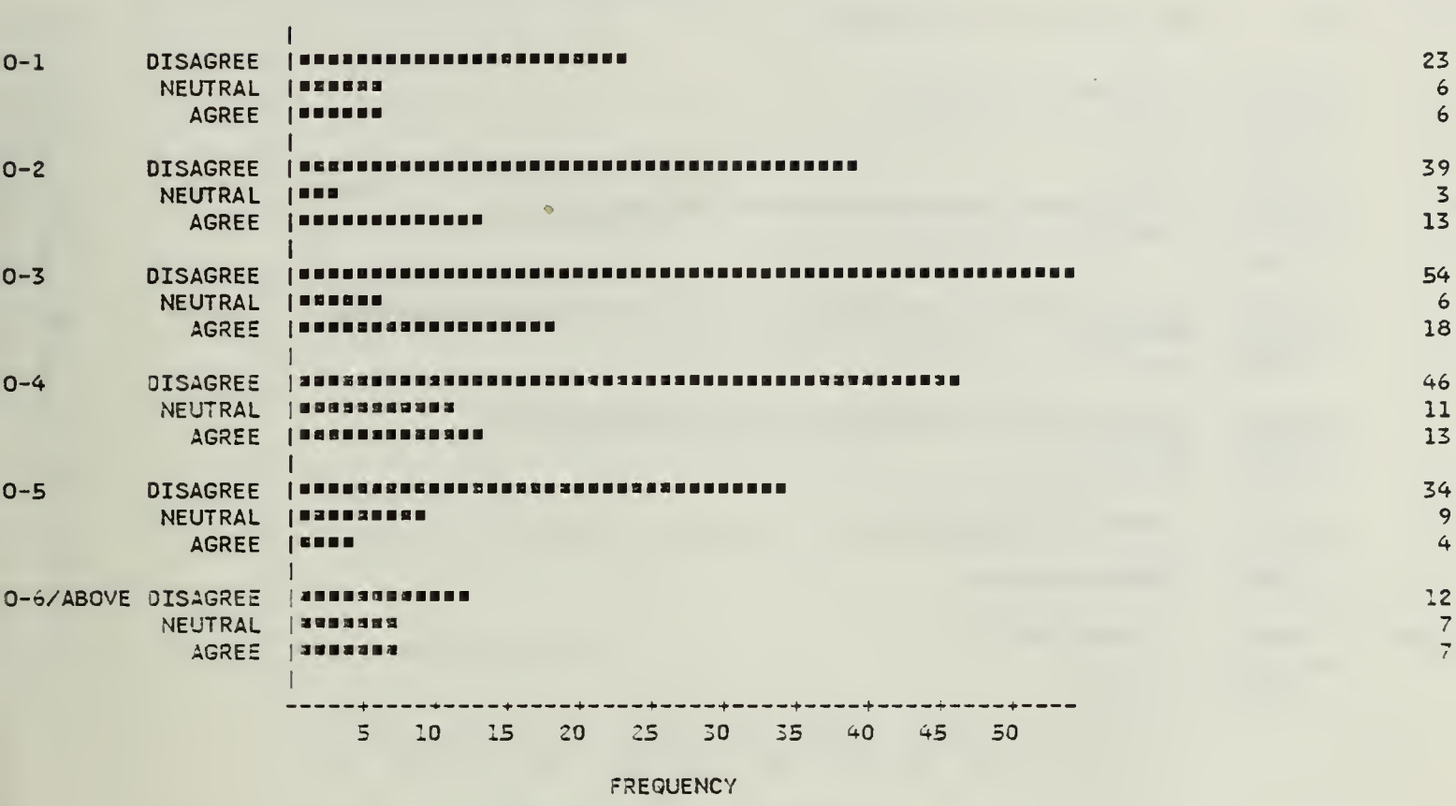

Q12 MANAGEMENT RESPONSIBILITIES FREQ
0-1 DISAGREE 7
NEUTRAL 6
AGREE 22
0-2 DISAGREE 5
NEUTRAL 10
AGREE 40
0-3 DISAGREE 0
NEUTRAL 6
AGREE 73
0-4 DISAGREE 1
NEUTRAL 8
AGREE 61
0-5 DISAGREE 2
NEUTRAL 2
AGREE 44
0-6/ABOVE DISAGREE 0
NEUTRAL 0
AGREE 26
5 10 15 20 25 30 35 40 45 50 55 60 65 70
FREQUENCY

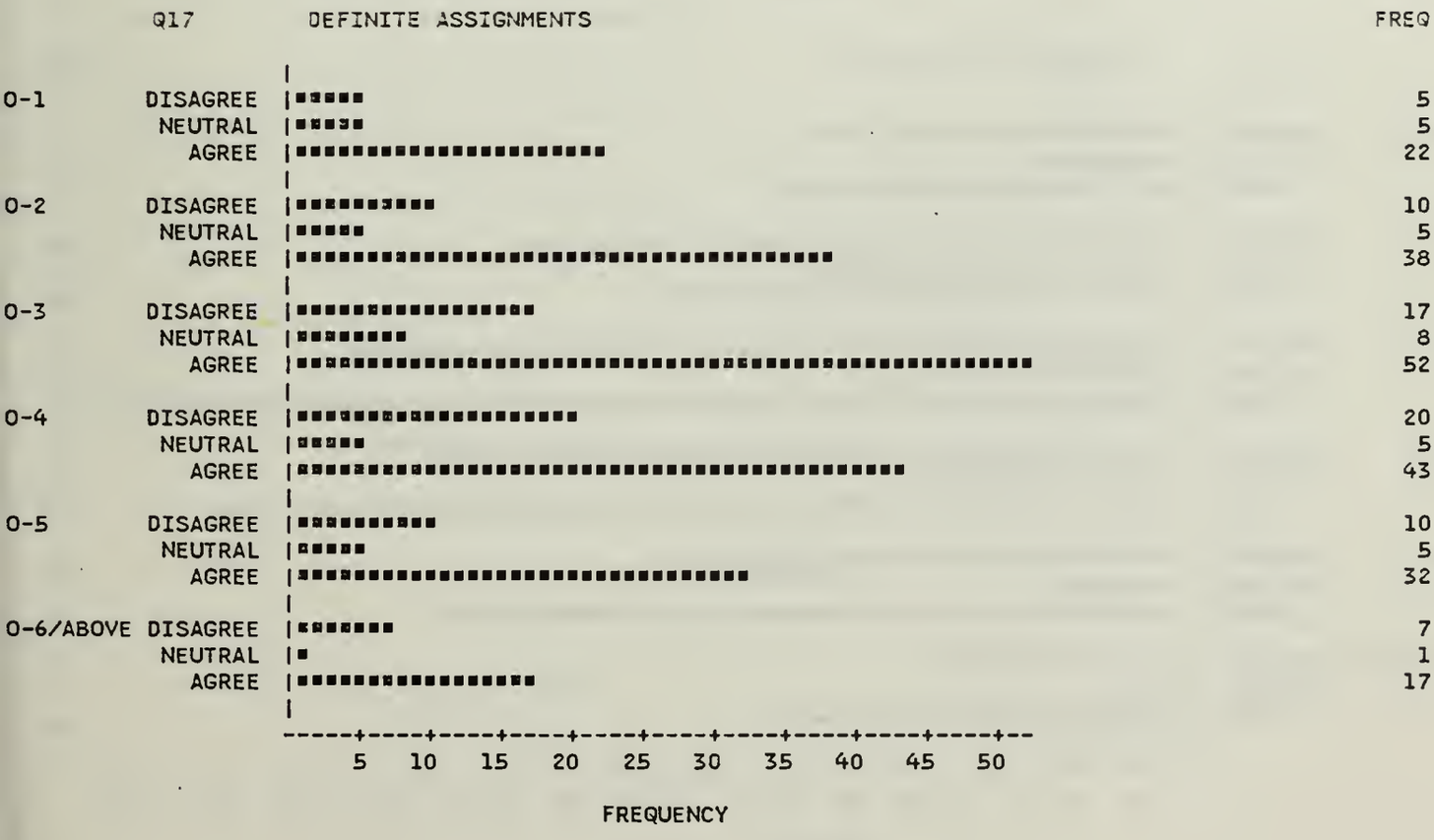

Q13 SUPERVISE PEOPLE FREQ
0-1 DISAGREE 5
NEUTRAL 9
AGREE 21
0-2 DISAGREE 6
NEUTRAL 8
AGREE 41
0-3 DISAGREE 4
NEUTRAL 4
AGREE 71
0-4 DISAGREE 3
NEUTRAL 12
AGREE 55
0-5 DISAGREE 5
NEUTRAL 2
AGREE 41
0-6/ABOVE DISAGREE 0
NEUTRAL 2
AGREE 24
5 10 15 20 25 30 35 40 45 50 55 60 65 70
FREQUENCY

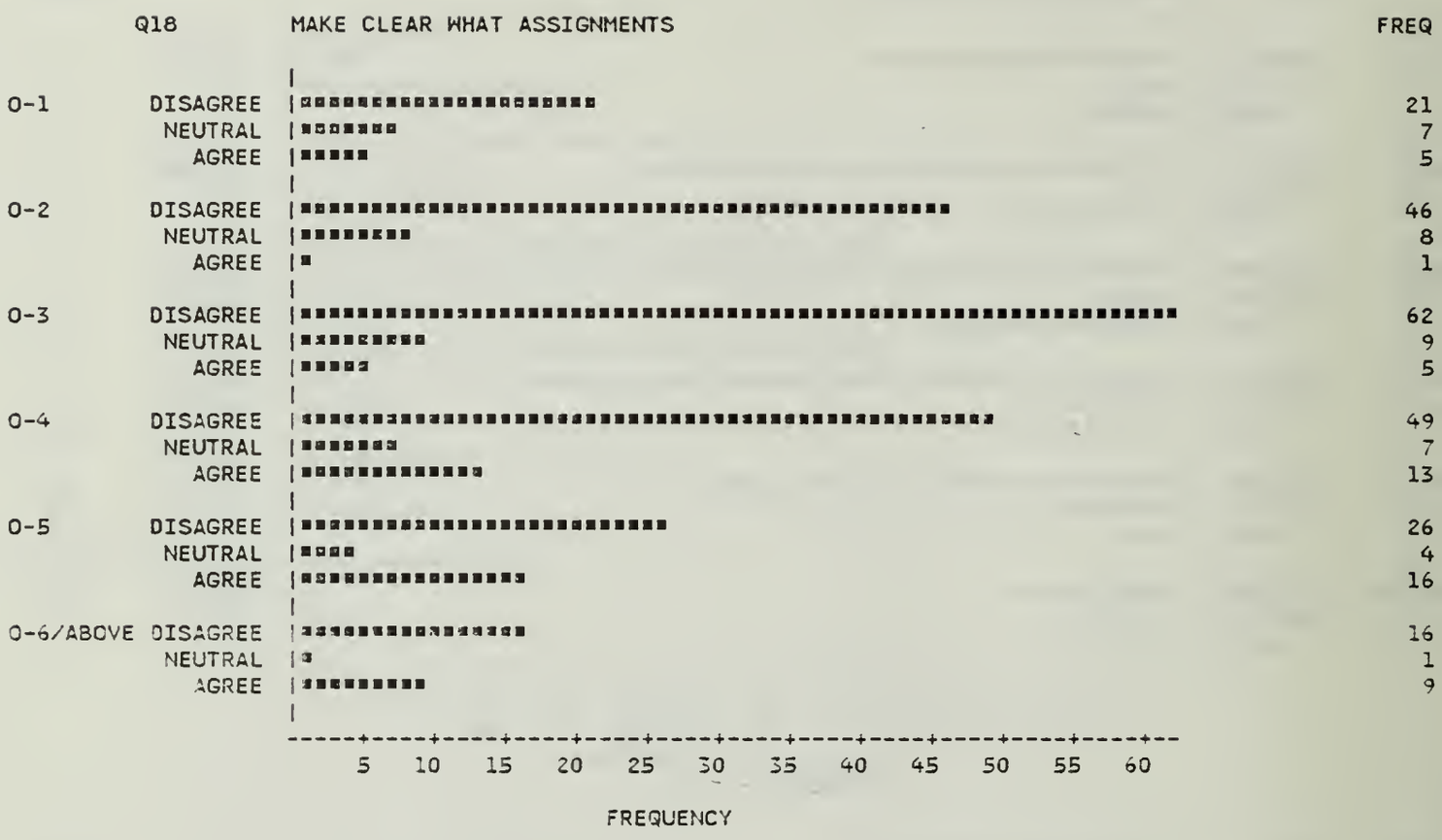

Q14 STRICTLY RESEARCH FREQ
0-1 DISAGREE 11
NEUTRAL 5
AGREE 19
0-2 DISAGREE 28
NEUTRAL 13
AGREE 14
0-3 DISAGREE 42
NEUTRAL 17
AGREE 20
0-4 DISAGREE 42
NEUTRAL 19
AGREE 9
0-5 DISAGREE 28
NEUTRAL 7
AGREE 12
0-6/ABOVE DISAGREE 18
NEUTRAL 2
AGREE 5
5 10 15 20 25 30 35 40
FREQUENCY

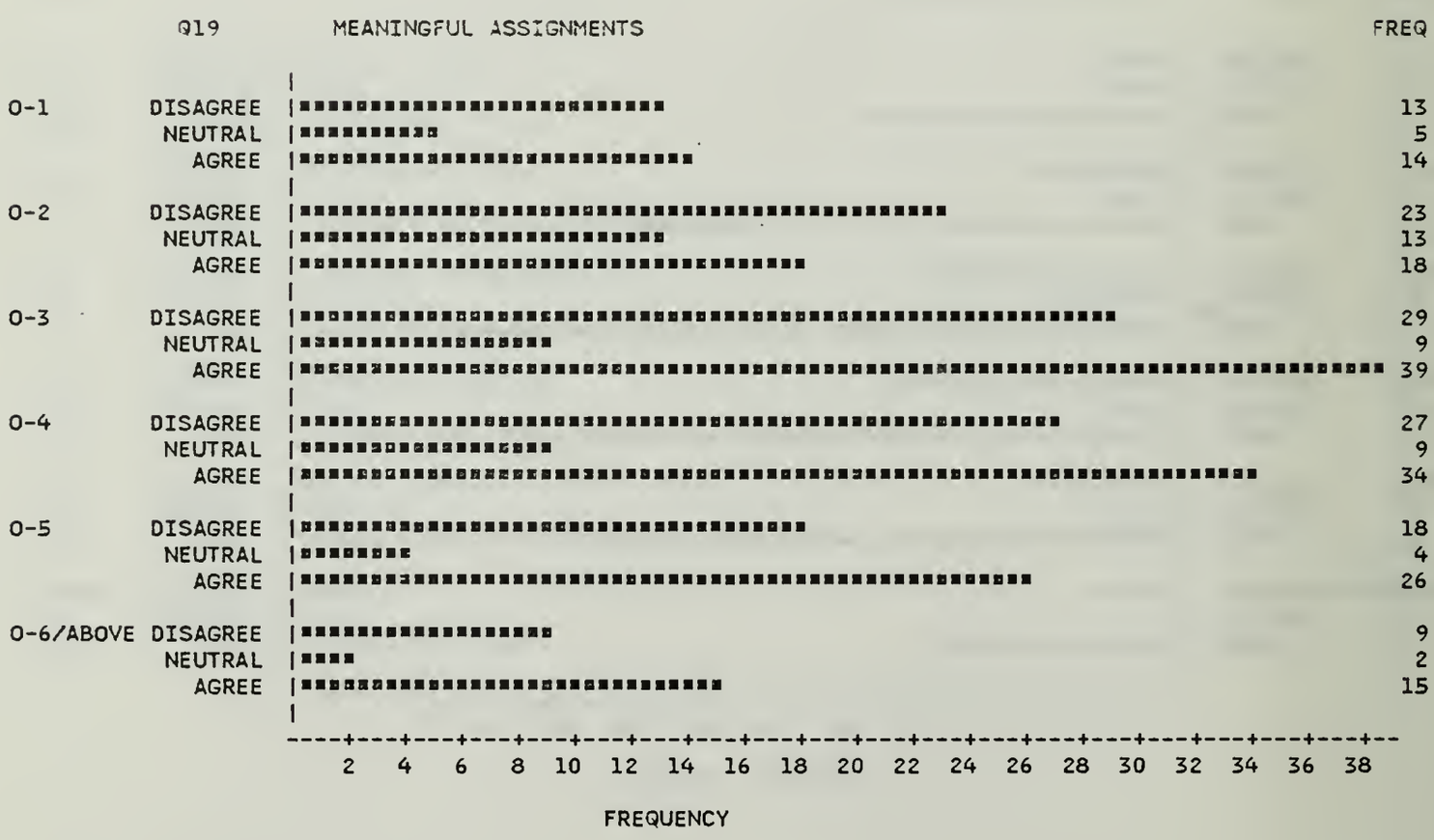
1

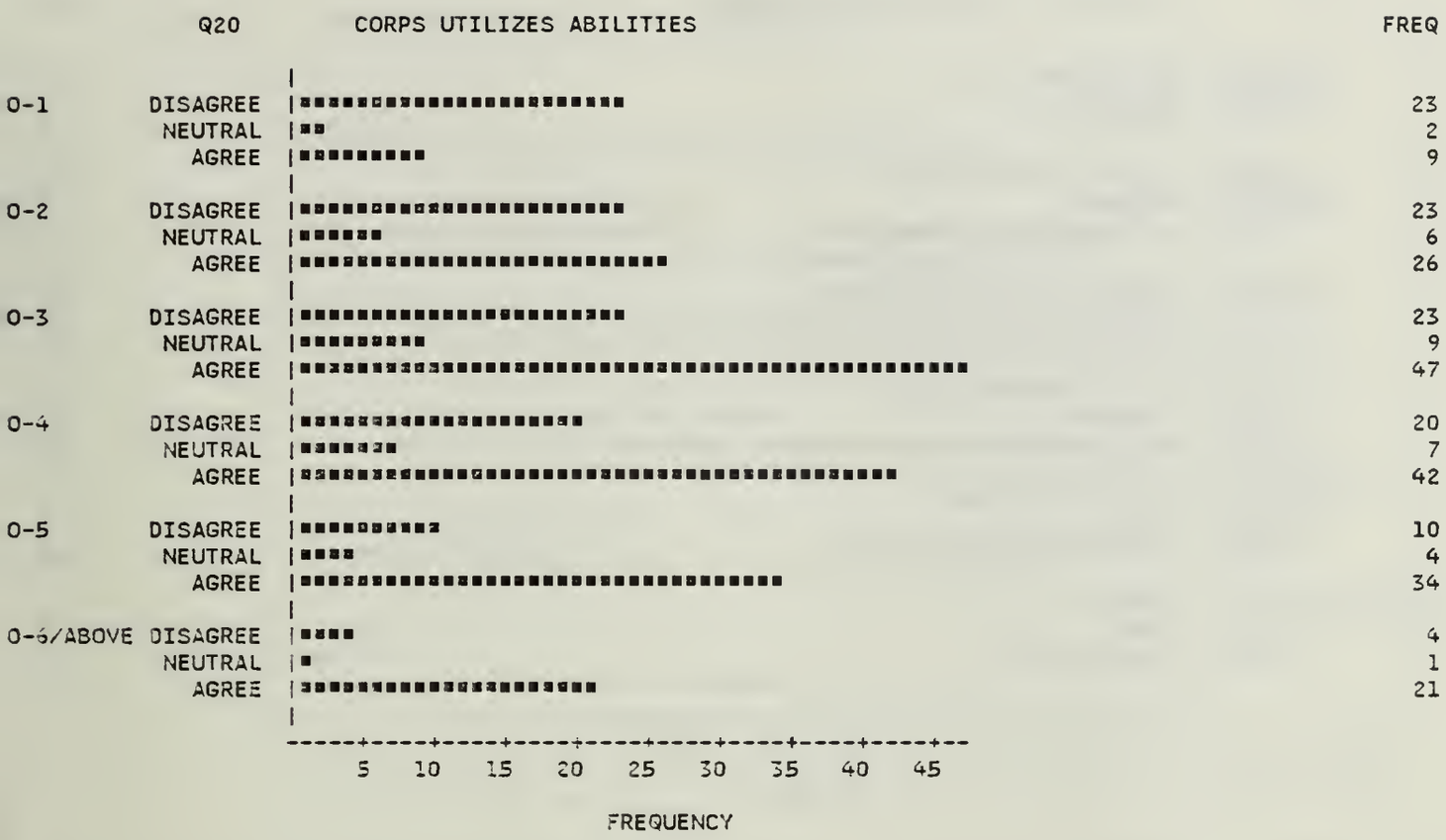

Q15 TDY - JOB VARIETY FREQ
0-1 DISAGREE 14
NEUTRAL 5
AGREE 16
0-2 DISAGREE 16
NEUTRAL 5
AGREE 33
0-3 DISAGREE 24
NEUTRAL 8
AGREE 47
0-4 DISAGREE 18
NEUTRAL 5
AGREE 47
0-5 DISAGREE 13
NEUTRAL 4
AGREE 31
0-6/ABOVE DISAGREE 5
NEUTRAL 4
AGREE 17
5 10 15 20 25 30 35 40 45
FREQUENCY

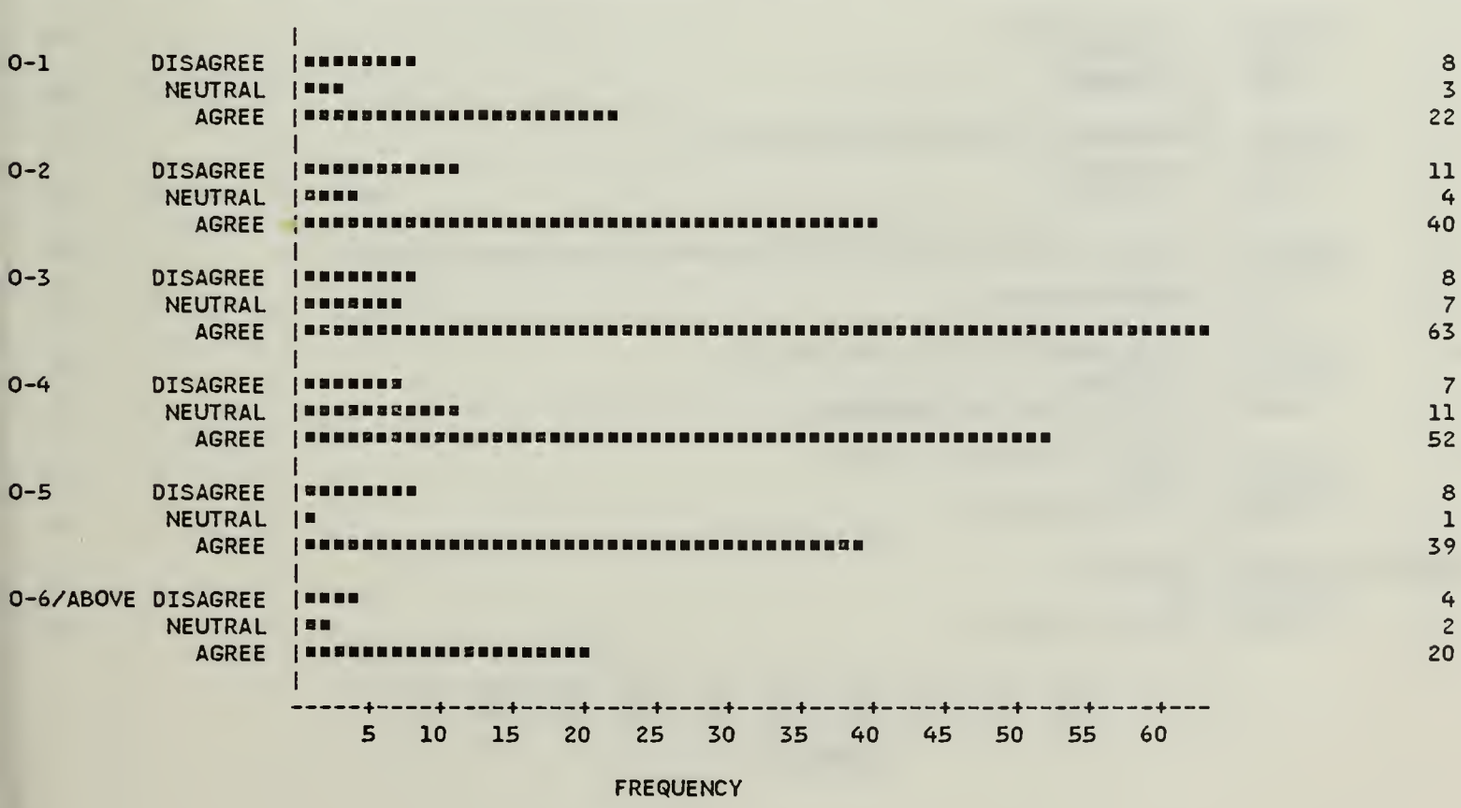

Q16 SHORT NOTICE RELOCATION FREQ
0-1 DISAGREE 23
NEUTRAL 6
AGREE 6
0-2 DISAGREE 39
NEUTRAL 3
AGREE 13
0-3 DISAGREE 54
NEUTRAL 6
AGREE 18
0-4 DISAGREE 46
NEUTRAL 11
AGREE 13
0-5 DISAGREE 34
NEUTRAL 9
AGREE 4
0-6/ABOVE DISAGREE 12
NEUTRAL 7
AGREE 7
5 10 15 20 25 30 35 40 45 50
FREQUENCY


Q17 DEFINITE ASSIGNMENTS FREQ
0-1 DISAGREE 5
NEUTRAL 5
AGREE 22
0-2 DISAGREE 10
NEUTRAL 5
AGREE 38
0-3 DISAGREE 17
NEUTRAL 8
AGREE 52
0-4 DISAGREE 20
NEUTRAL 5
AGREE 43
0-5 DISAGREE 10
NEUTRAL 5
AGREE 32
0-6/ABOVE DISAGREE 7
NEUTRAL 1
AGREE 17
5 10 15 20 25 30 35 40 45 50
FREQUENCY


Q18 MAKE CLEAR WHAT ASSIGNMENTS FREQ
0-1 DISAGREE 21
NEUTRAL 7
AGREE 5
0-2 DISAGREE 46
NEUTRAL 8
AGREE 1
0-3 DISAGREE 62
NEUTRAL 9
AGREE 5
0-4 DISAGREE 49
NEUTRAL 7
AGREE 13
0-5 DISAGREE 26
NEUTRAL 4
AGREE 16
0-6/ABOVE DISAGREE 16
NEUTRAL 1
AGREE 9
5 10 15 20 25 30 35 40 45 50 55 60
FREQUENCY


Q19 MEANINGFUL ASSIGNMENTS FREQ
0-1 DISAGREE 13
NEUTRAL 5
AGREE 14
0-2 DISAGREE 23
NEUTRAL 13
AGREE 18
0-3 DISAGREE 29
NEUTRAL 9
AGREE 39
0-4 DISAGREE 27
NEUTRAL 9
AGREE 34
0-5 DISAGREE 18
NEUTRAL 4
AGREE 26
0-6/ABOVE DISAGREE 9
NEUTRAL 2
AGREE 15
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38
FREQUENCY


Q20 CORPS UTILIZES ABILITIES FREQ
O-1 DISAGREE 23
NEUTRAL 2
AGREE 9
O-2 DISAGREE 23
NEUTRAL 6
AGREE 26
O-3 DISAGREE 23
NEUTRAL 9
AGREE 47
O-4 DISAGREE 20
NEUTRAL 7
AGREE 42
O-5 DISAGREE 10
NEUTRAL 4
AGREE 34
O-6/ABOVE DISAGREE 4
NEUTRAL 1
AGREE 21
5 10 15 20 25 30 35 40 45
FREQUENCY

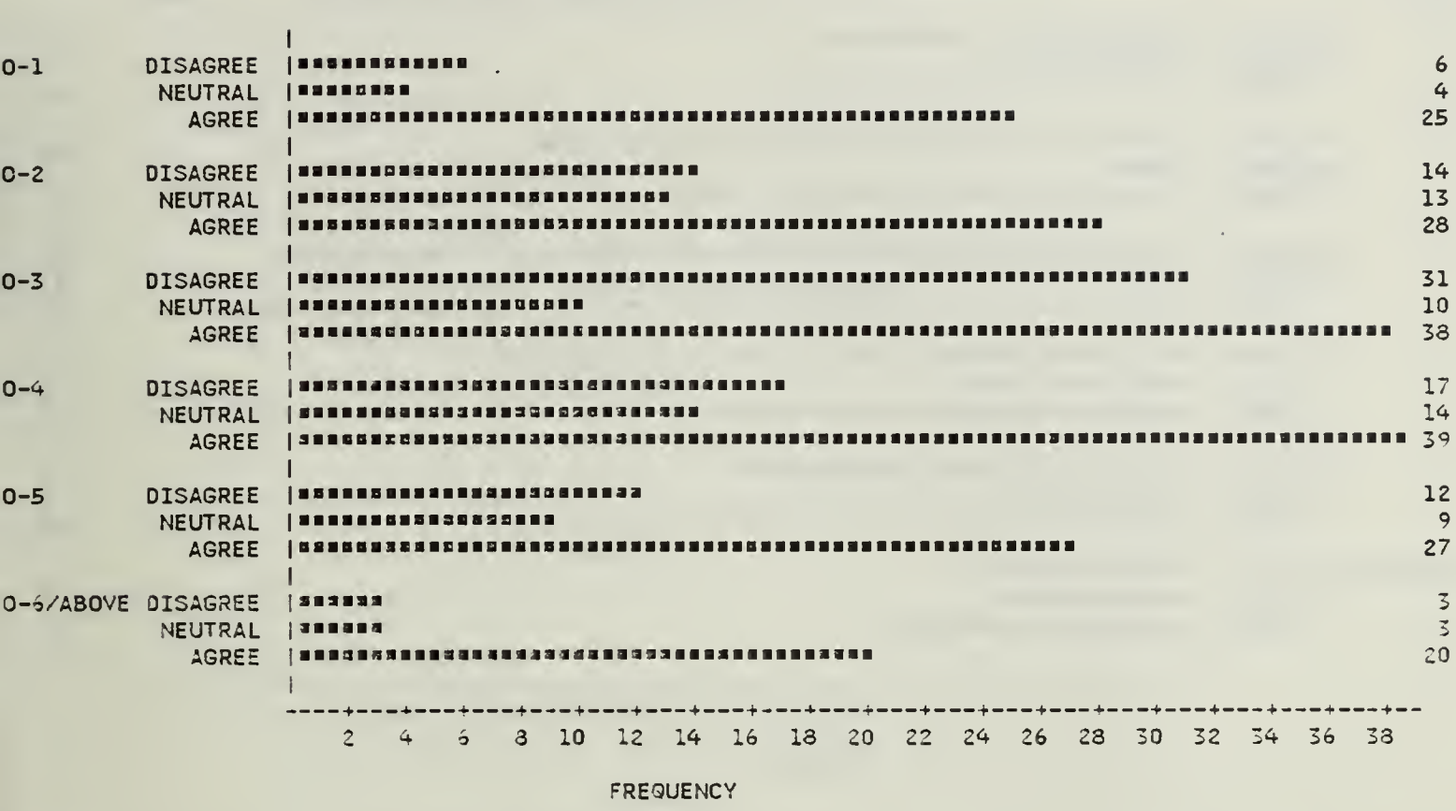

Q21 PRESENT ASSIGNMENT REWARDING FREQ
O-1 DISAGREE 8
NEUTRAL 3
AGREE 22
O-2 DISAGREE 11
NEUTRAL 4
AGREE 40
O-3 DISAGREE 8
NEUTRAL 7
AGREE 63
O-4 DISAGREE 7
NEUTRAL 11
AGREE 52
O-5 DISAGREE 8
NEUTRAL 1
AGREE 39
O-6/ABOVE DISAGREE 4
NEUTRAL 2
AGREE 20
5 10 15 20 25 30 35 40 45 50 55 60
FREQUENCY

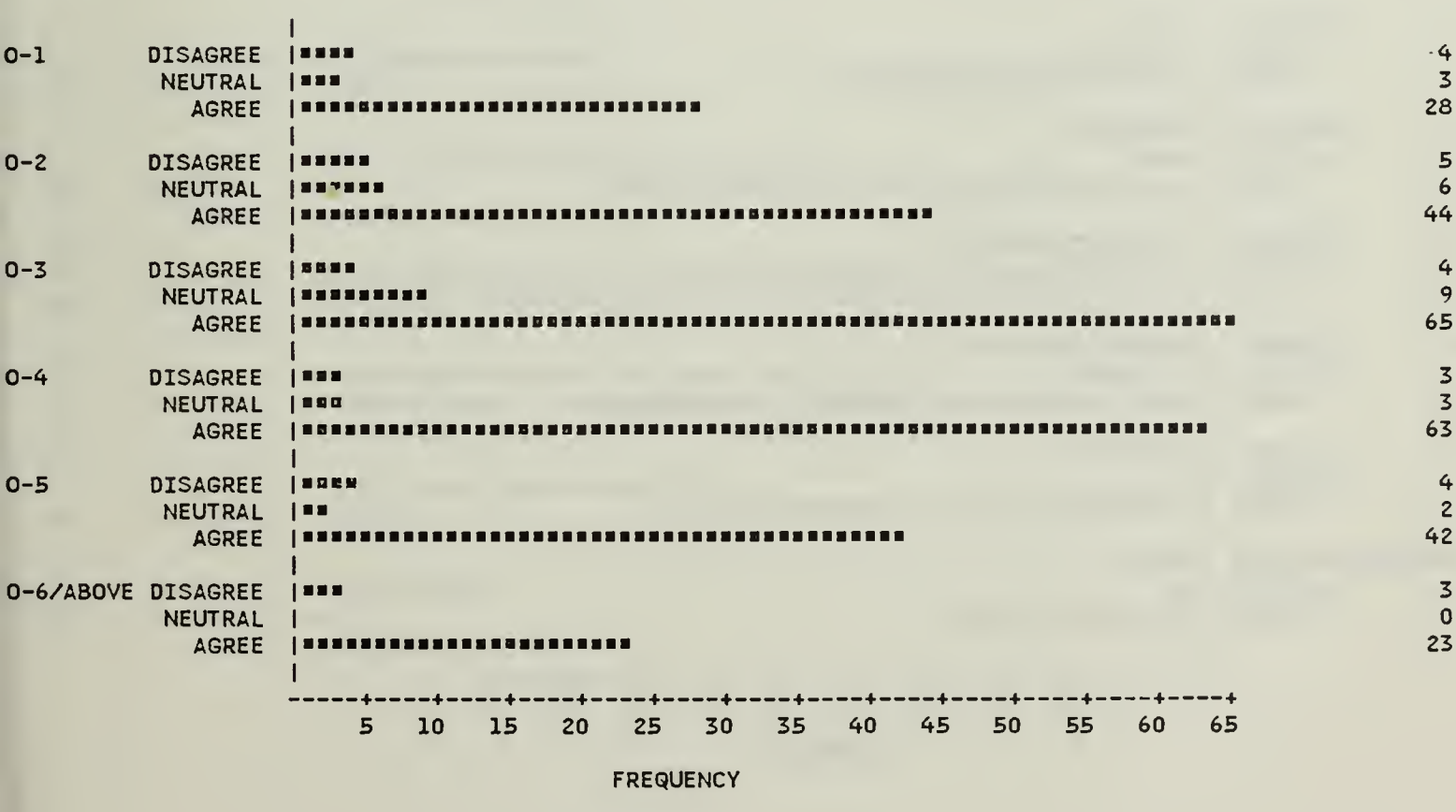
	Q22	INCENTIVES TO IMPROVE PERFORMANCE	FREQ
0-1	DISAGREE	■■■■■■■■■■■■■■■	15
	NEUTRAL	■■■■■■■■	8
	AGREE	■■■■■■■■■■■	11
0-2	DISAGREE	■■■■■■■■■■■■■■■■■■■■■	21
	NEUTRAL	■■■■■■■	7
	AGREE	■■■■■■■■■■■■■■■■■■■■■■■■■■	27
0-3	DISAGREE	■■■■■■■■■■■■■■■■■■■■■■■■	25
	NEUTRAL	■■■■■■■■■■■	11
	AGREE	■■■	43
0-4	DISAGREE	■■■■■■■■■■■■■■■■■■■■■■	20
	NEUTRAL	■■■■■■■■■■■	11
	AGREE	■■■	39
0-5	DISAGREE	■■■■■■■■■■■■■■■■■	16
	NEUTRAL	■■■■■■	6
	AGREE	■■■■■■■■■■■■■■■■■■■■■■■■■	25
0-6/ABOVE	DISAGREE	■■■■■■■■	7
	NEUTRAL	■■■■■	5
	AGREE	■■■■■■■■■■■■■■■	14

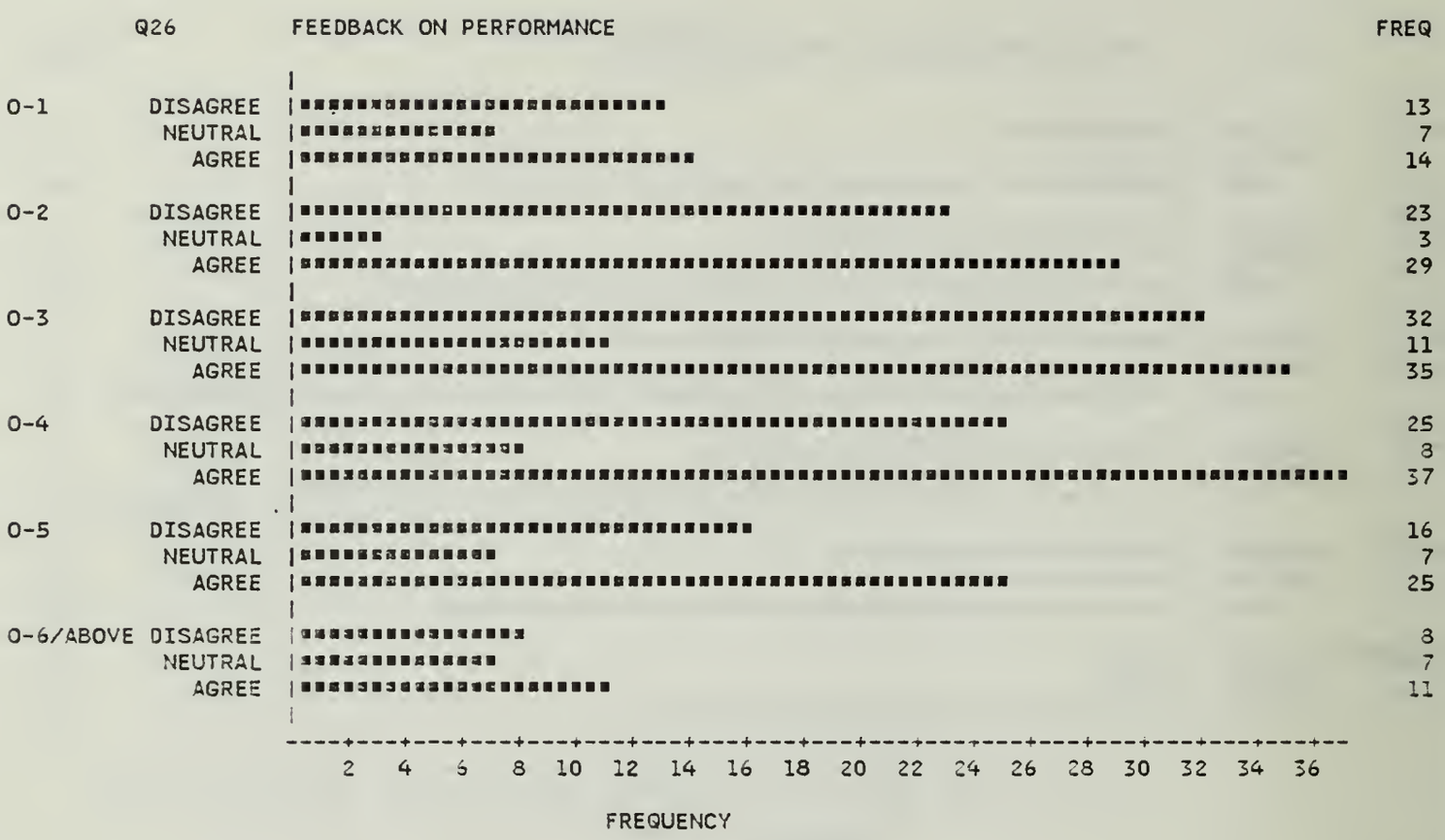
5 10 15 20 25 30 35 40

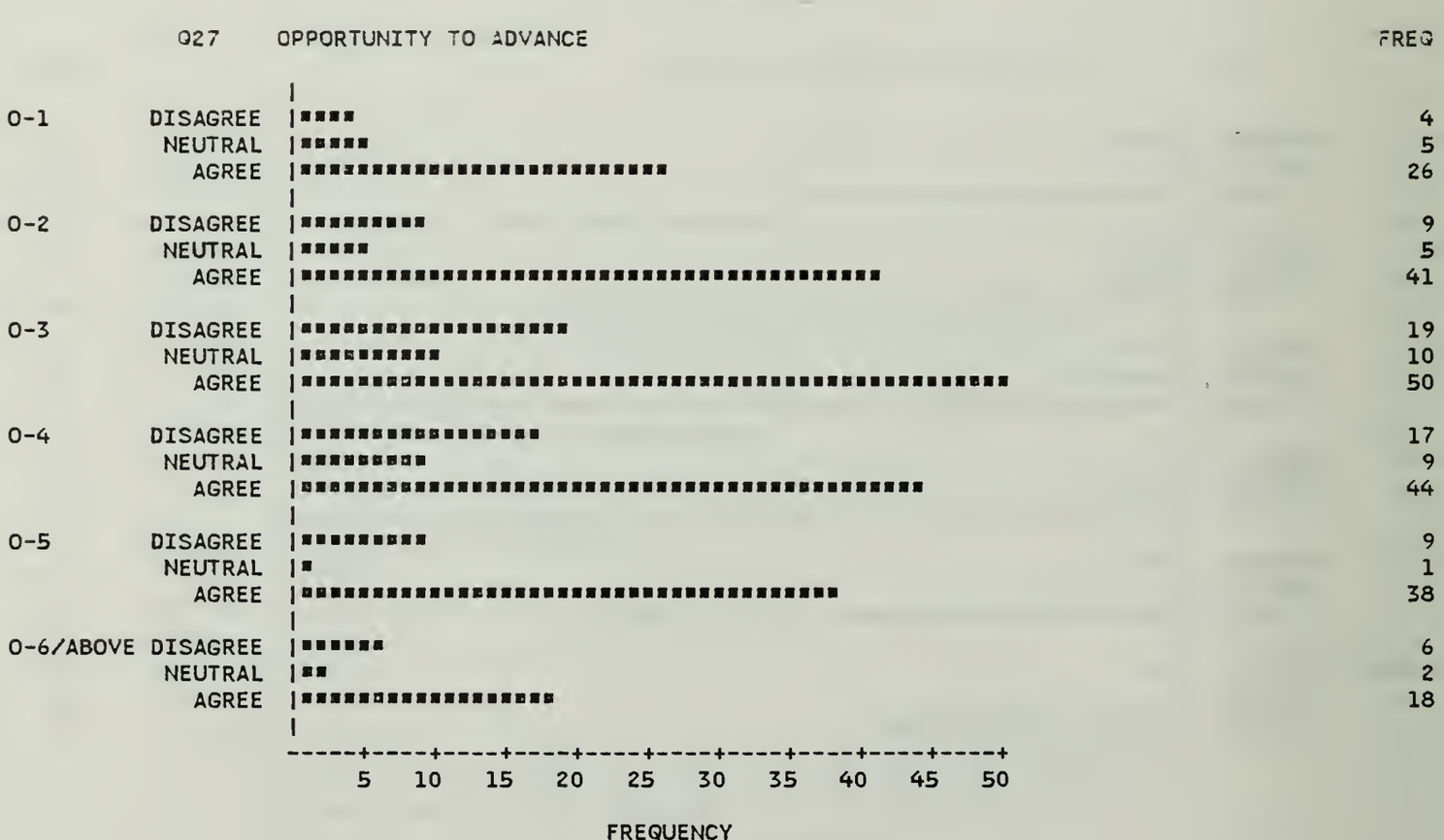
FREQUENCY

	Q23	TIMELY RECOGNITION	FREQ
0-1	DISAGREE	■■■■■■■■■■■■■■■	14
	NEUTRAL	■■■■■■■■■	9
	AGREE	■■■■■■■■■■	10
0-2	DISAGREE	■■■■■■■■■■■■■■■■■■■

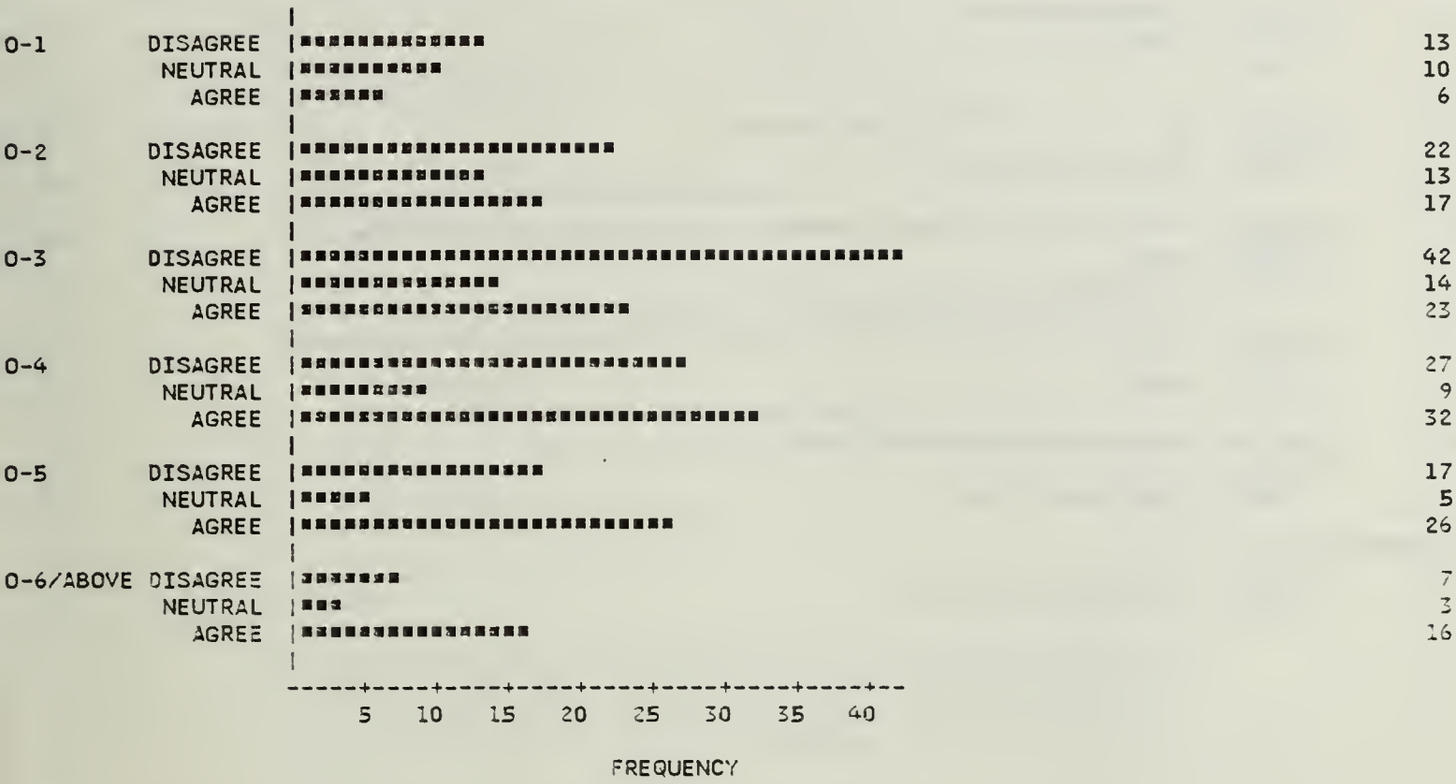

Q24 JOB ACCOMPLISHMENT - PEER RECOGNITION FREQ
0-1 DISAGREE 6
NEUTRAL 4
AGREE 25
0-2 DISAGREE 14
NEUTRAL 13
AGREE 28
0-3 DISAGREE 31
NEUTRAL 10
AGREE 38
0-4 DISAGREE 17
NEUTRAL 14
AGREE 39
0-5 DISAGREE 12
NEUTRAL 9
AGREE 27
0-6/ABOVE DISAGREE 3
NEUTRAL 3
AGREE 20
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38
FREQUENCY


Q25 JOB RESPONSIBLITIES CHALLENGING FREQ
0-1 DISAGREE 4
NEUTRAL 3
AGREE 28
0-2 DISAGREE 5
NEUTRAL 6
AGREE 44
0-3 DISAGREE 4
NEUTRAL 9
AGREE 65
0-4 DISAGREE 3
NEUTRAL 3
AGREE 63
0-5 DISAGREE 4
NEUTRAL 2
AGREE 42
0-6/ABOVE DISAGREE 3
NEUTRAL 0
AGREE 23
5 10 15 20 25 30 35 40 45 50 55 60 65
FREQUENCY

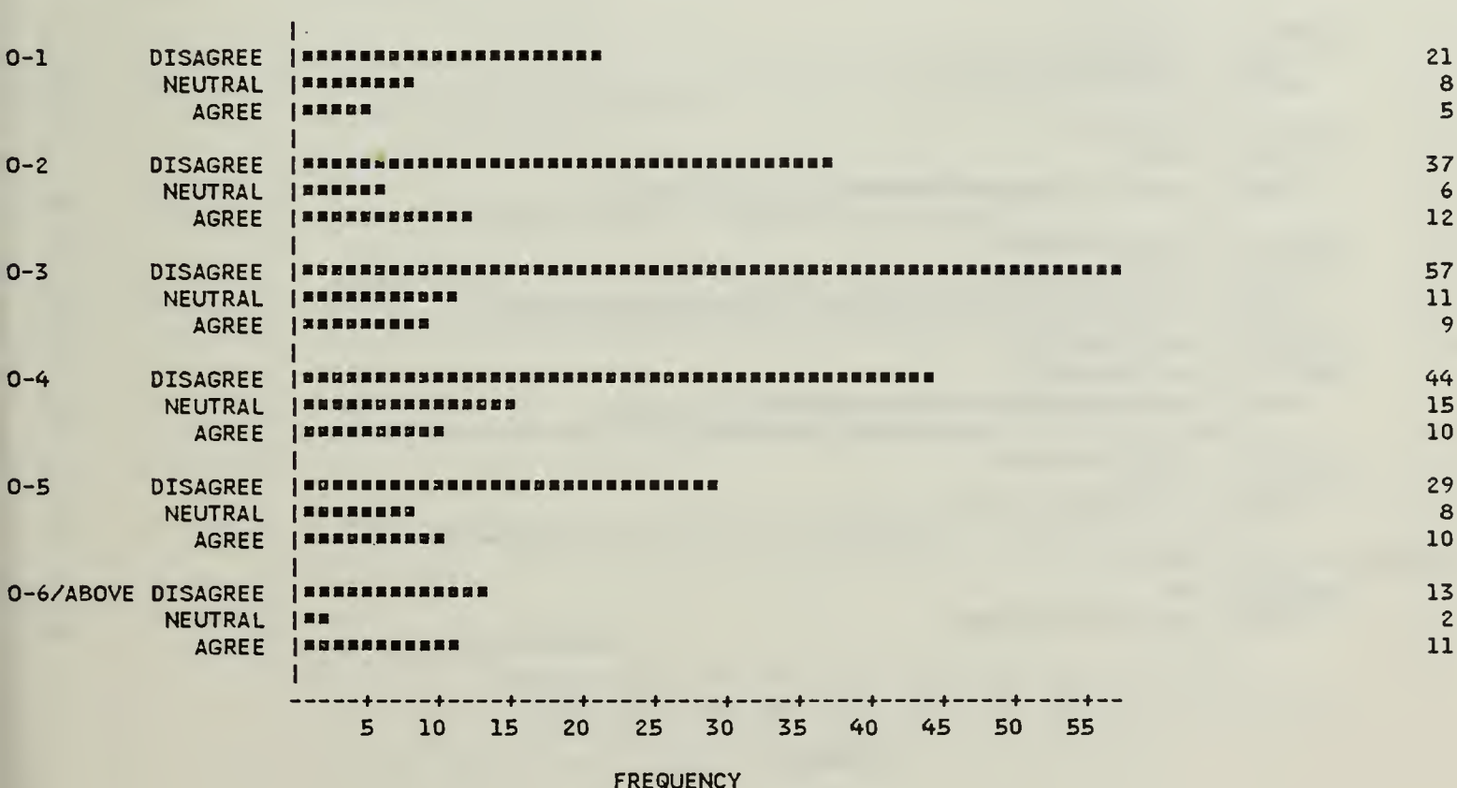

Q26 FEEDBACK ON PERFORMANCE FREQ
0-1 DISAGREE 13
NEUTRAL 7
AGREE 14
0-2 DISAGREE 23
NEUTRAL 3
AGREE 29
0-3 DISAGREE 32
NEUTRAL 11
AGREE 35
0-4 DISAGREE 25
NEUTRAL 8
AGREE 37
0-5 DISAGREE 16
NEUTRAL 7
AGREE 25
0-6/ABOVE DISAGREE 8
NEUTRAL 7
AGREE 11
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
FREQUENCY


Q27 OPPORTUNITY TO ADVANCE FREQ
0-1 DISAGREE 4
NEUTRAL 5
AGREE 26
0-2 DISAGREE 9
NEUTRAL 5
AGREE 41
0-3 DISAGREE 19
NEUTRAL 10
AGREE 50
0-4 DISAGREE 17
NEUTRAL 9
AGREE 44
0-5 DISAGREE 9
NEUTRAL 1
AGREE 38
0-6/ABOVE DISAGREE 6
NEUTRAL 2
AGREE 18
5 10 15 20 25 30 35 40 45 50
FREQUENCY

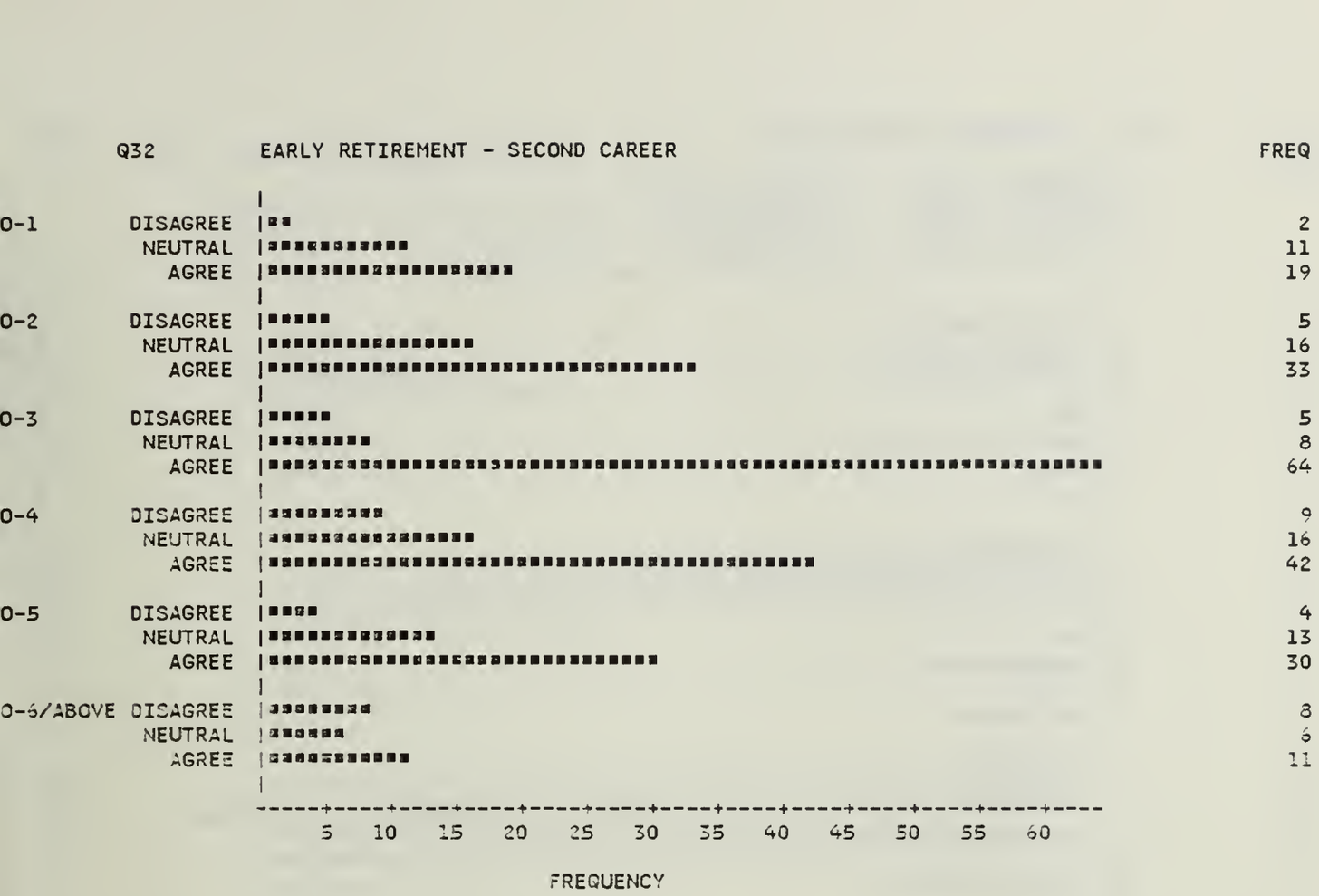
Q28 QUALIFICATIONS & PROMOTION FREQ

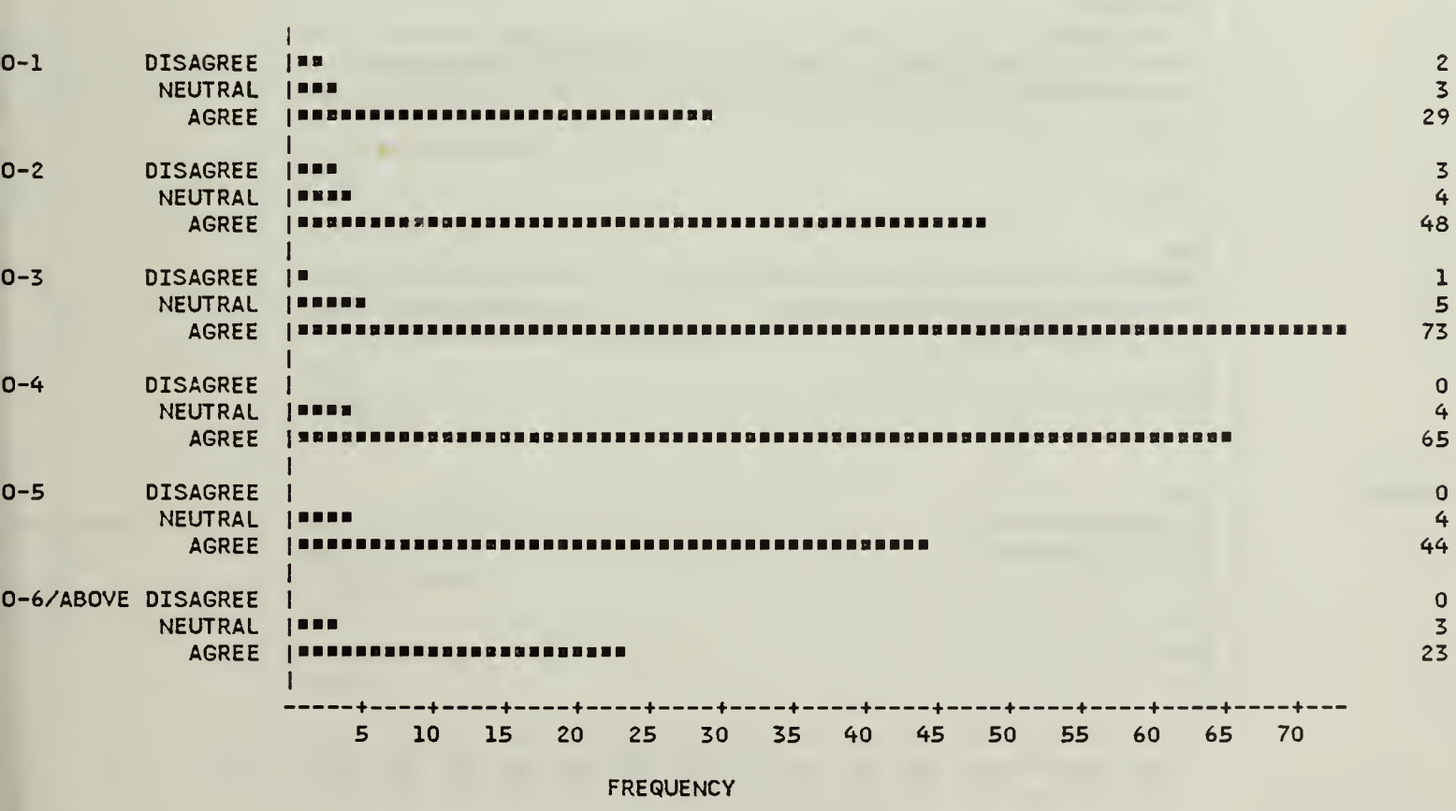


Q29 BEST PEOPLE TO THE TOP FREQ



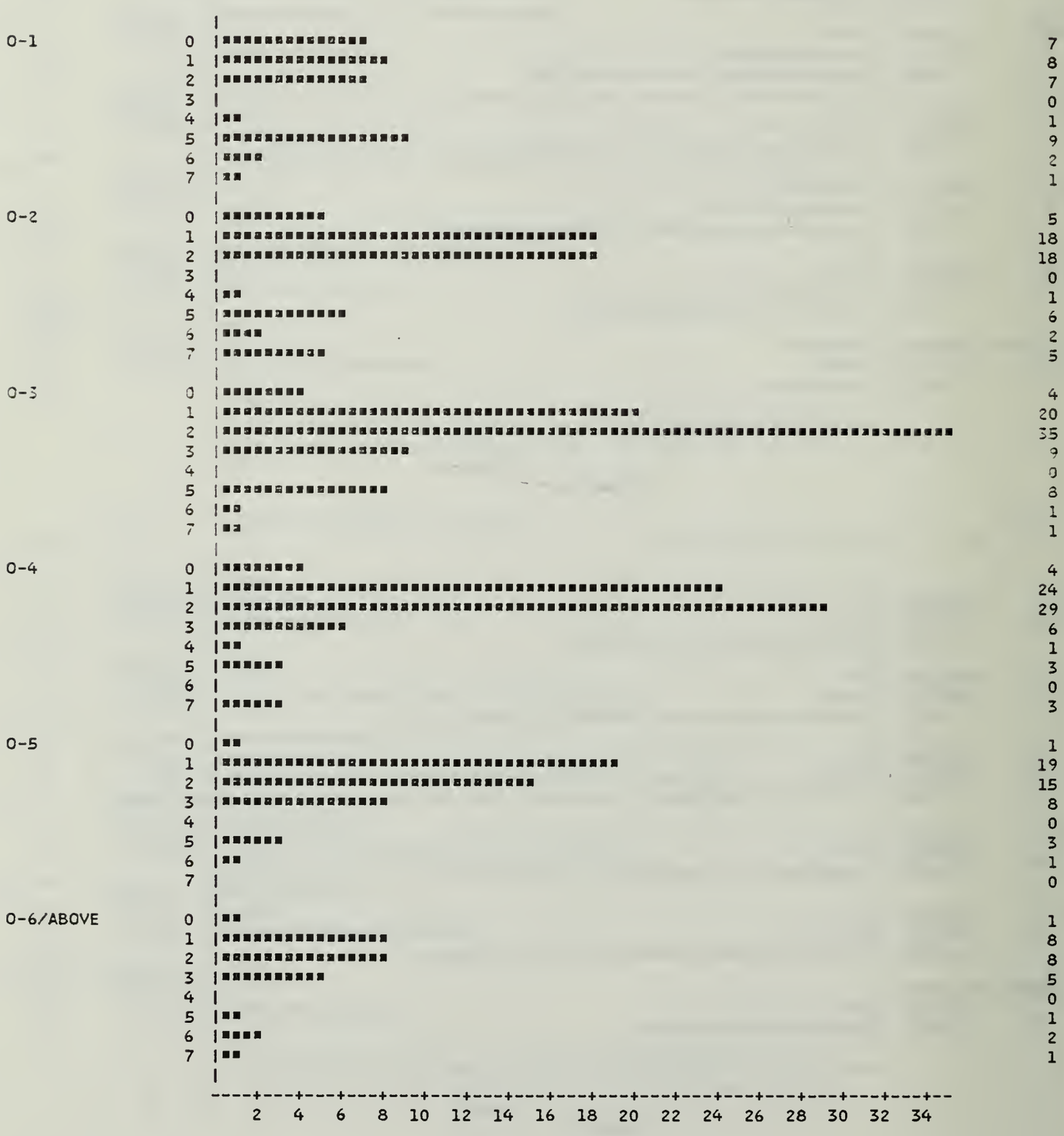
	Q30	SATISFIED W/ PROMOTION RATE	FREQ
O-1	DISAGREE	■■■■■■■■■■■■■■■■	15
	NEUTRAL	■■■■■■■	7
	AGREE		0
O-2	DISAGREE	■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■	32
	NEUTRAL	■■	2
	AGREE	■■■■■■■■■■■■■■■■■■	17
O-3	DISAGREE	■■■■■■■■■■■■■■■■■■■


Q32 EARLY RETIREMENT - SECOND CAREER FREQ
0-1 DISAGREE 2
NEUTRAL 11
AGREE 19
0-2 DISAGREE 5
NEUTRAL 16
AGREE 33
0-3 DISAGREE 5
NEUTRAL 8
AGREE 64
0-4 DISAGREE 9
NEUTRAL 16
AGREE 42
0-5 DISAGREE 4
NEUTRAL 13
AGREE 30
0-6/ABOVE DISAGREE 8
NEUTRAL 6
AGREE 11
5 10 15 20 25 30 35 40 45 50 55 60
FREQUENCY


Q33 CARE ABOUT THE FUTURE FREQ
0-1 DISAGREE 2
NEUTRAL 3
AGREE 29
0-2 DISAGREE 3
NEUTRAL 4
AGREE 48
0-3 DISAGREE 1
NEUTRAL 5
AGREE 73
0-4 DISAGREE 0
NEUTRAL 4
AGREE 65
0-5 DISAGREE 0
NEUTRAL 4
AGREE 44
0-6/ABOVE DISAGREE 0
NEUTRAL 3
AGREE 23
5 10 15 20 25 30 35 40 45 50 55 60 65 70
FREQUENCY

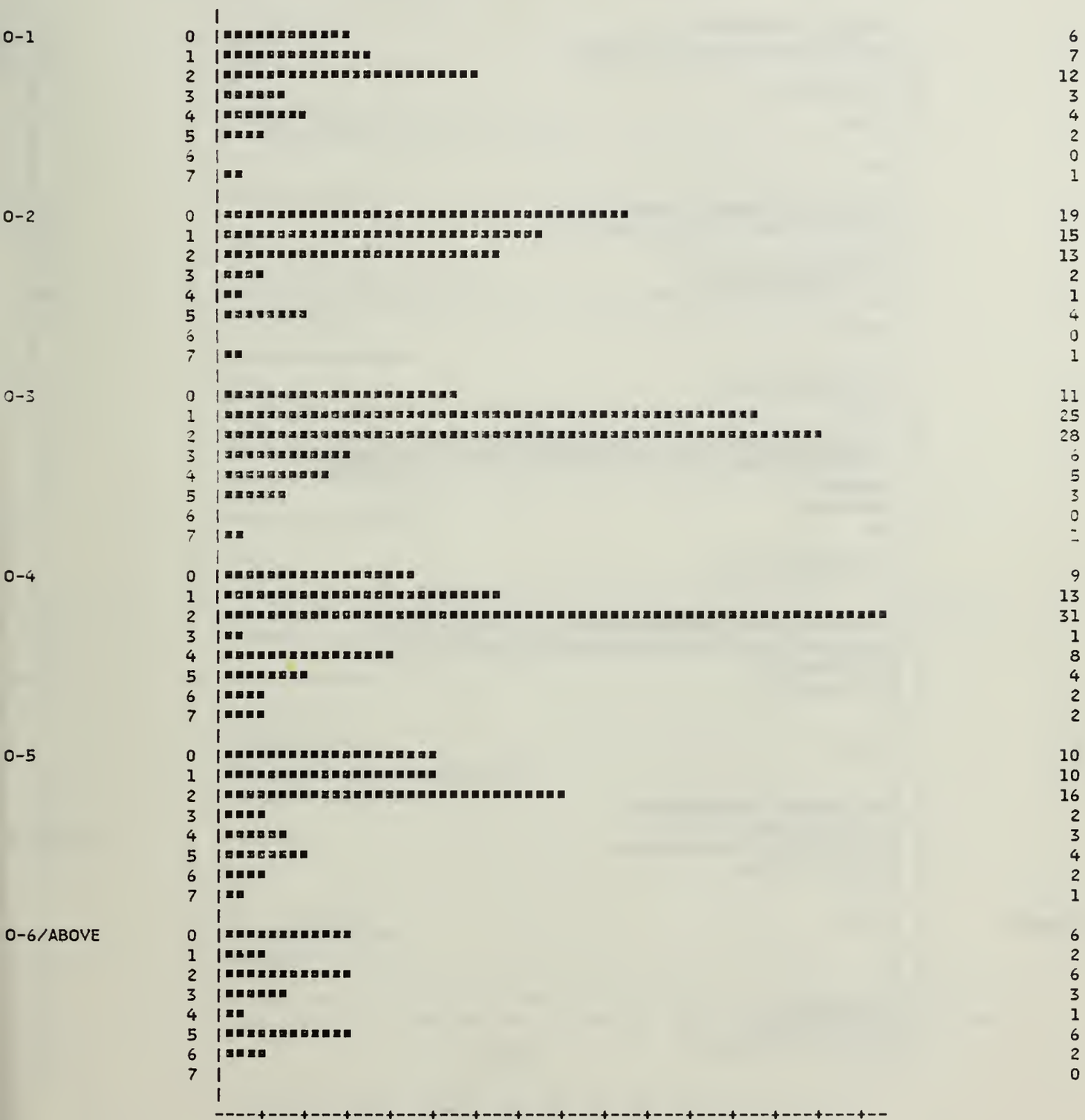
Q34 SUPERVISOR COMMUNICATION FREQ

(7) EVERY MONTH (3) EVERY 12 MONTHS
(6) EVERY 3 MONTHS (2) ON OCCASION
(5) EVERY 6 MONTHS (1) NEVER
(4) EVERY 9 MONTHS (0) NO OPINION



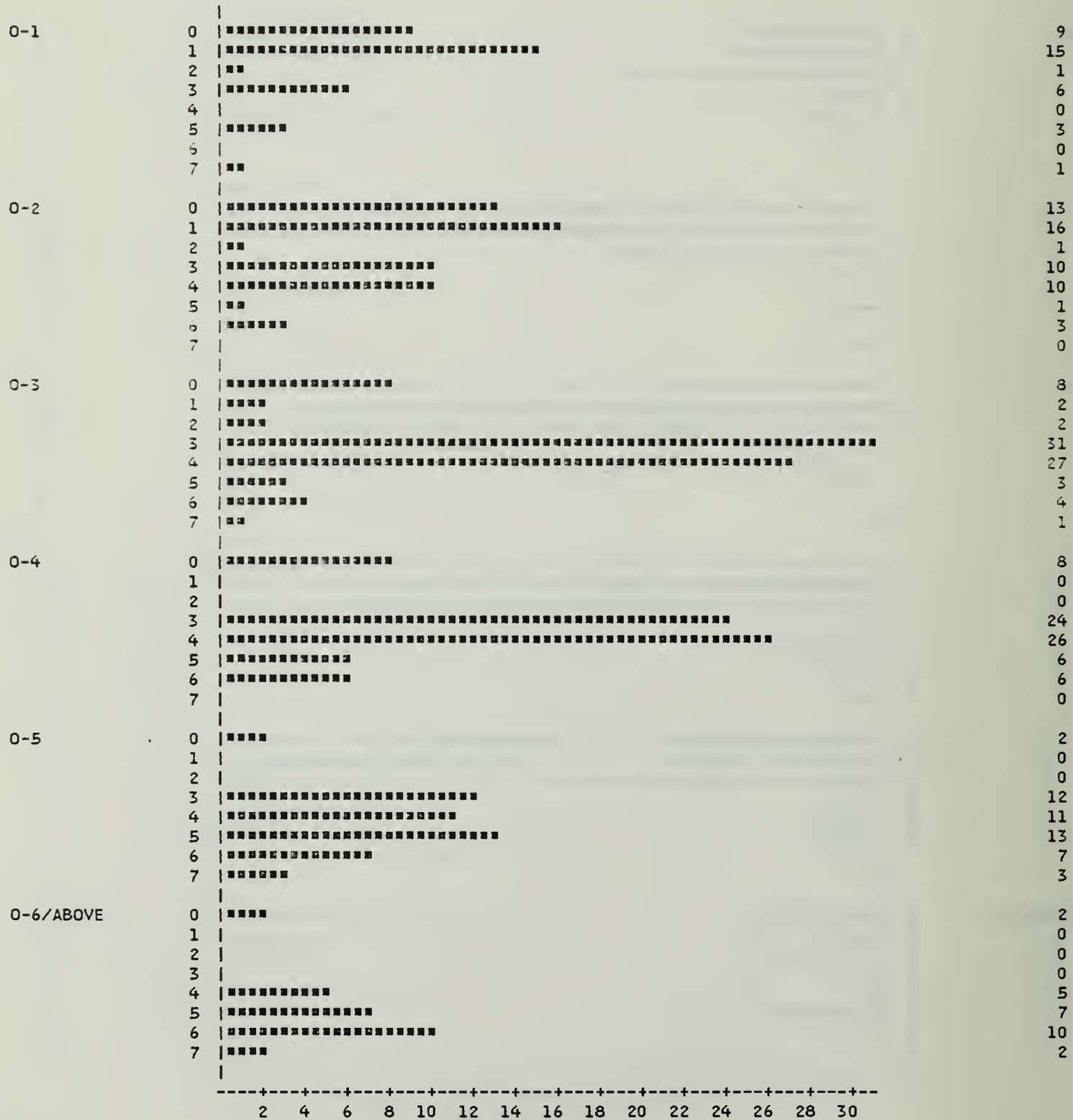
Q35 PROMOTIONS WILL GET BETTER FREQ

(7) LESS THAN 1 YEAR (3) 4 YEARS
(6) 1 YEAR (2) 5 OR MORE YEARS
(5) 2 YEARS (1) NEVER
(4) 3 YEARS (0) NO OPINION



Q36 RETIREMENT - SEPARATION PLAN FREQ

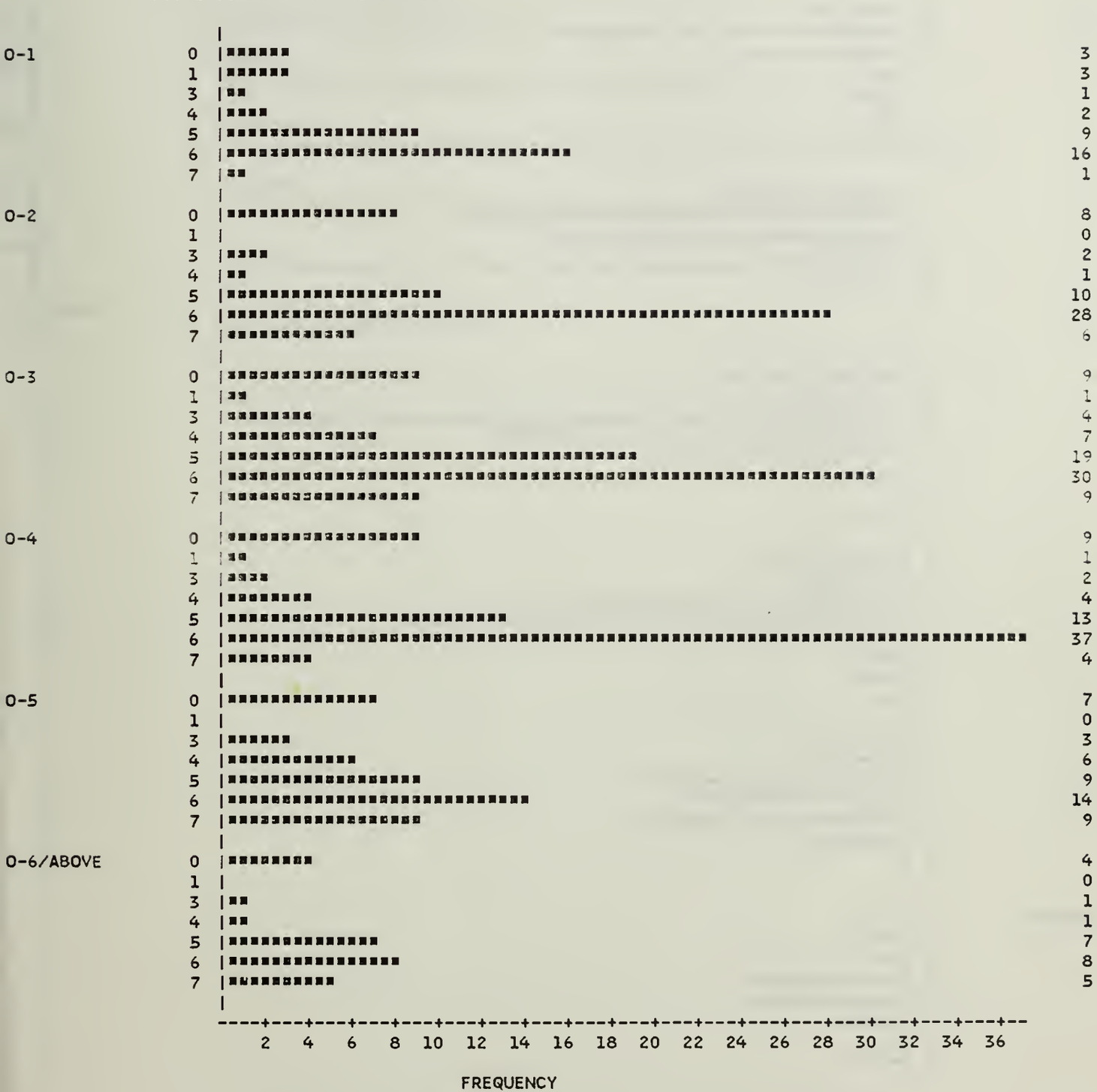
(7) MANDATORY AGE (3) 20 YEARS
(6) 30 YEARS (2) 11-19 YEARS
(5) 25-29 YEARS (1) LESS THAN 10 YEARS
(4) 21-25 YEARS (0) NO OPINION



Q37 TIME REQUIRED TO FIND A JOB

FREQ

(7) 1 MONTH (3) 3 YEARS
(6) 6 MONTHS (2) 4 YEARS
(5) 1 YEAR (1) 5 YEARS
(4) 2 YEARS (0) NO OPINION

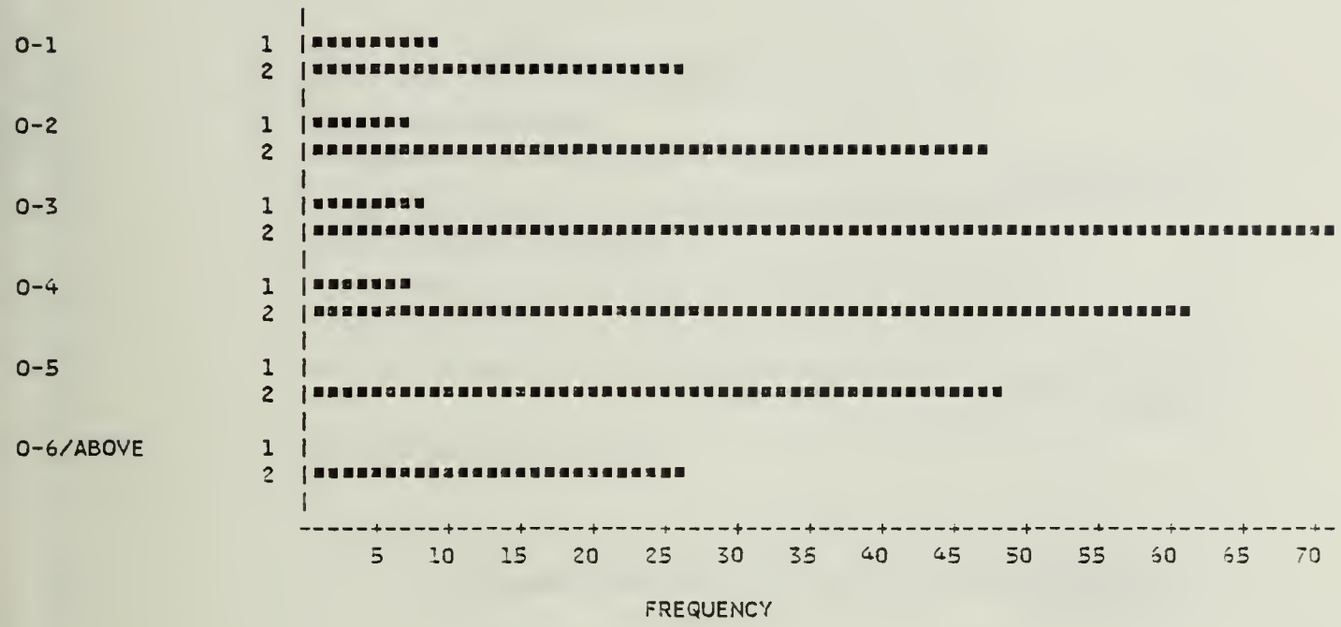


Q38 ANTICIPATED SALARY FREQ

(7) MORE THAN $80K (3) $41 TO 50K
(6) $71 TO 80K (2) $31 TO 40K
(5) $61 TO 70K (1) $21 TO 30K
(4) $51 TO 60K (0) NO OPINION

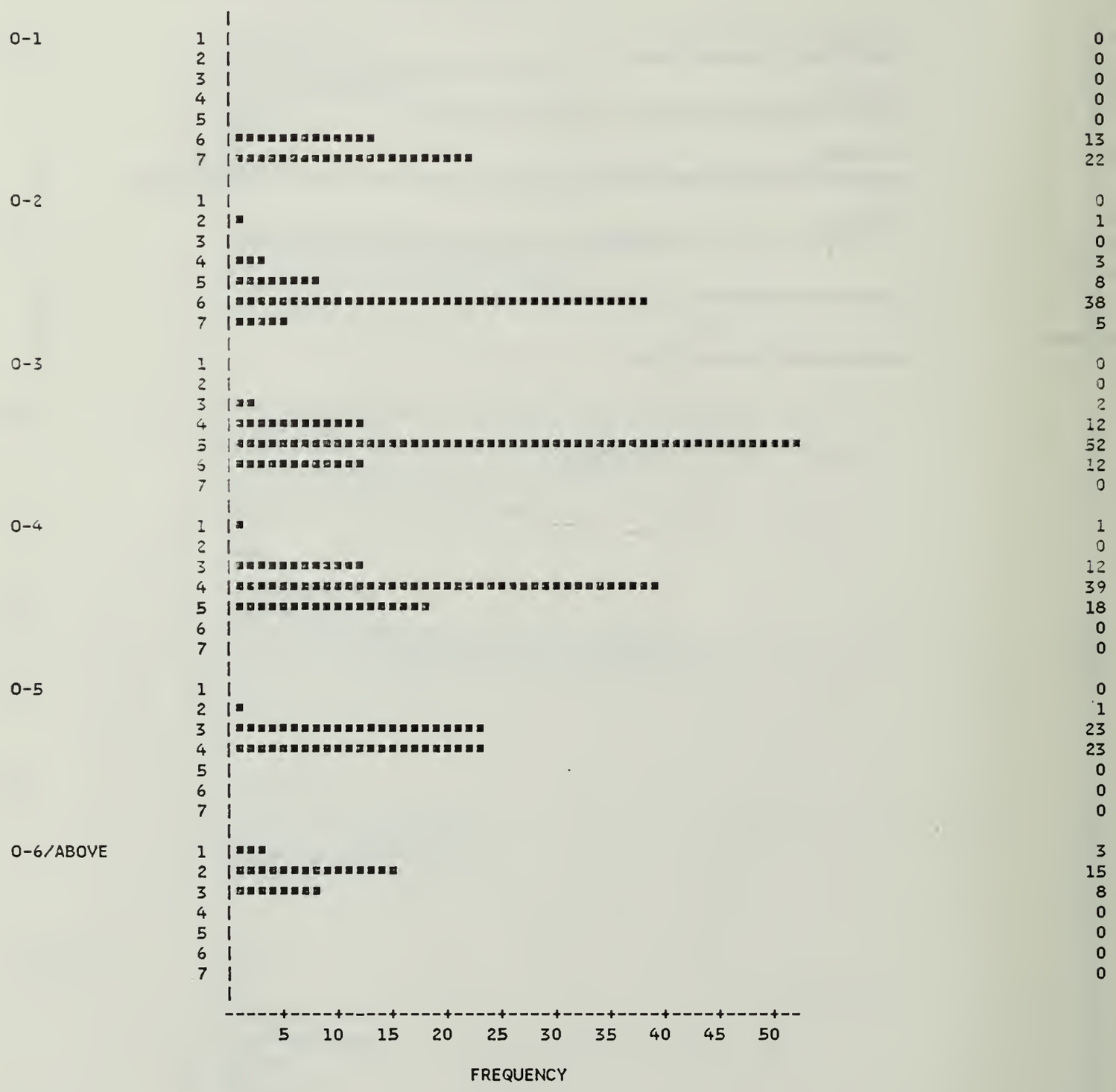
Q39 GENDER FREQ

(1) FEMALE
(2) MALE



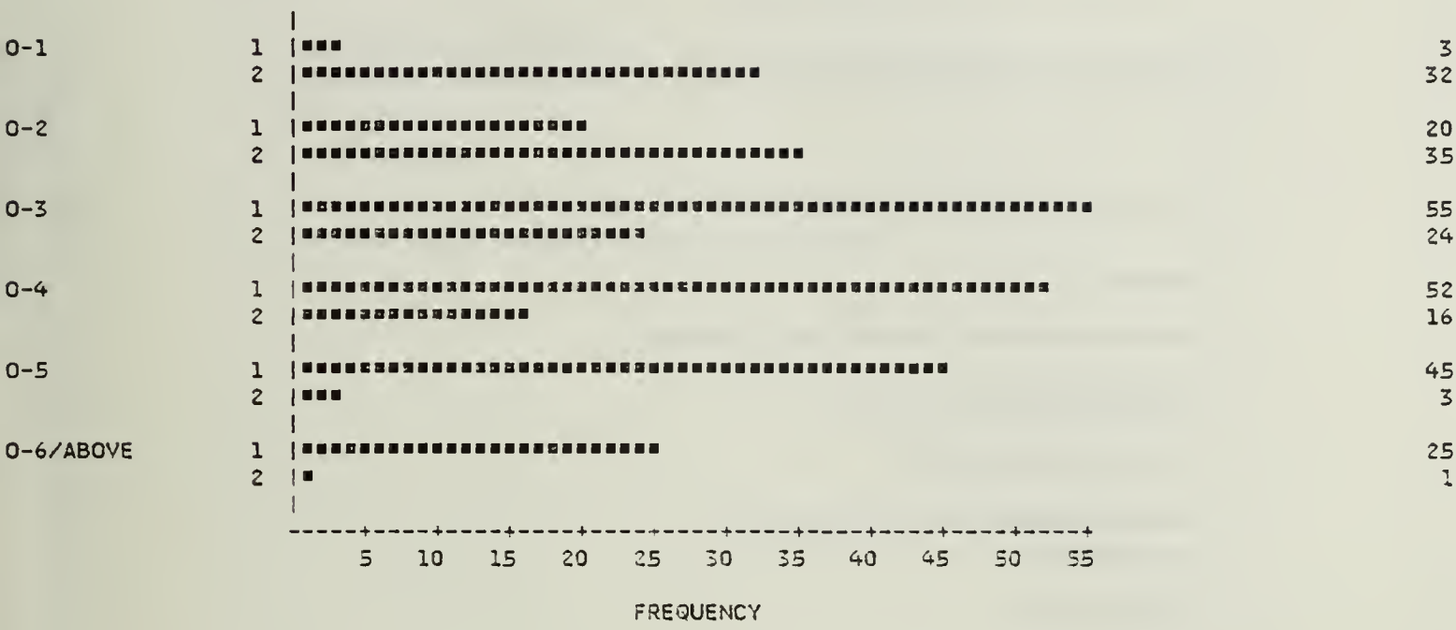
Q40 AGE FREQ

(7) 21 TO 25 (3) 41 TO 45
(6) 26 TO 30 (2) 46 TO 50
(5) 31 TO 35 (1) 51 TO 55
(4) 36 TO 40 (0) 55 PLUS



Q41 MARITAL STATUS FREQ

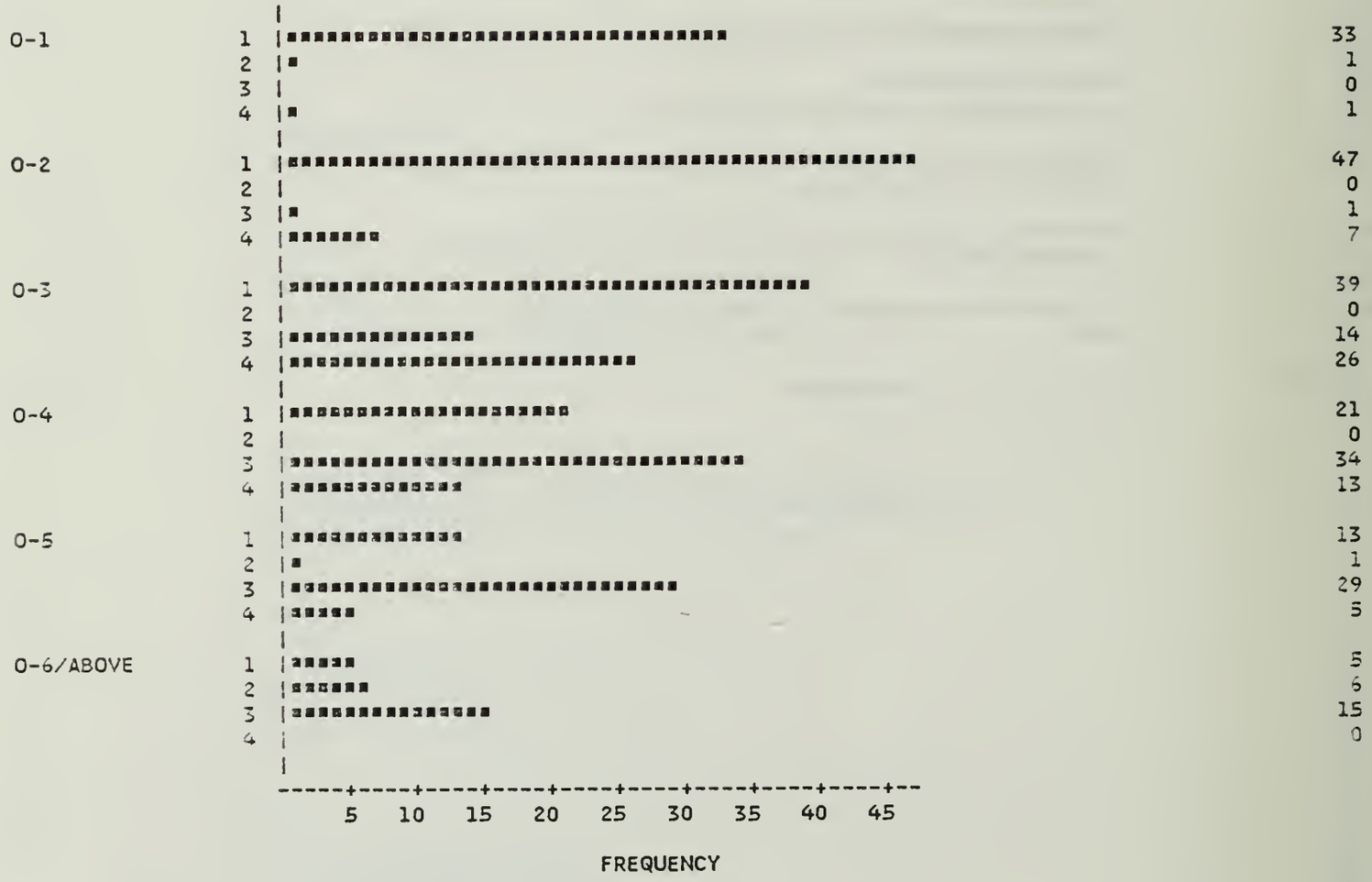
(1) MARRIED
(2) SINGLE, SEPARATED, OR DIVORCED



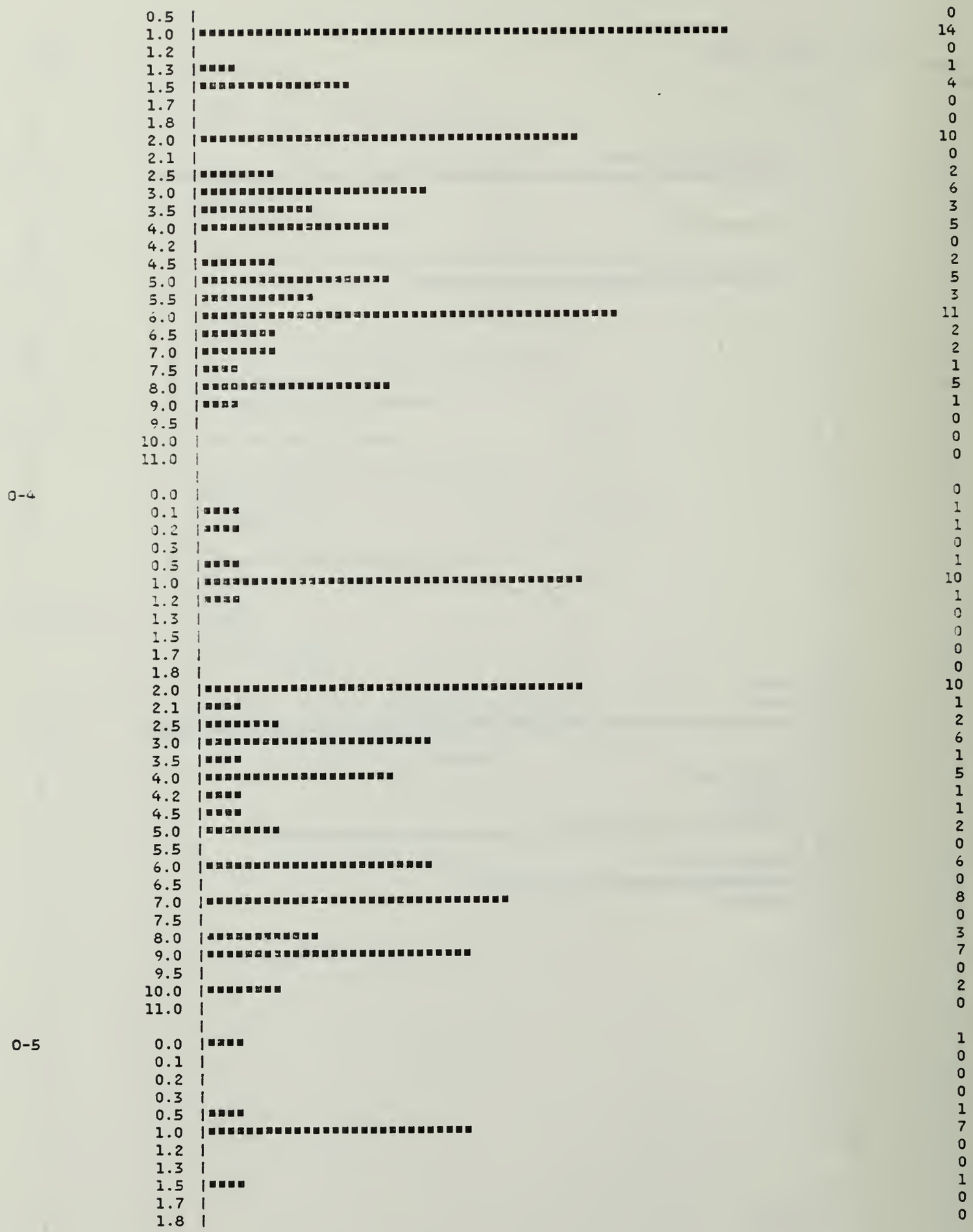
Q42 CHILDRENS AGES

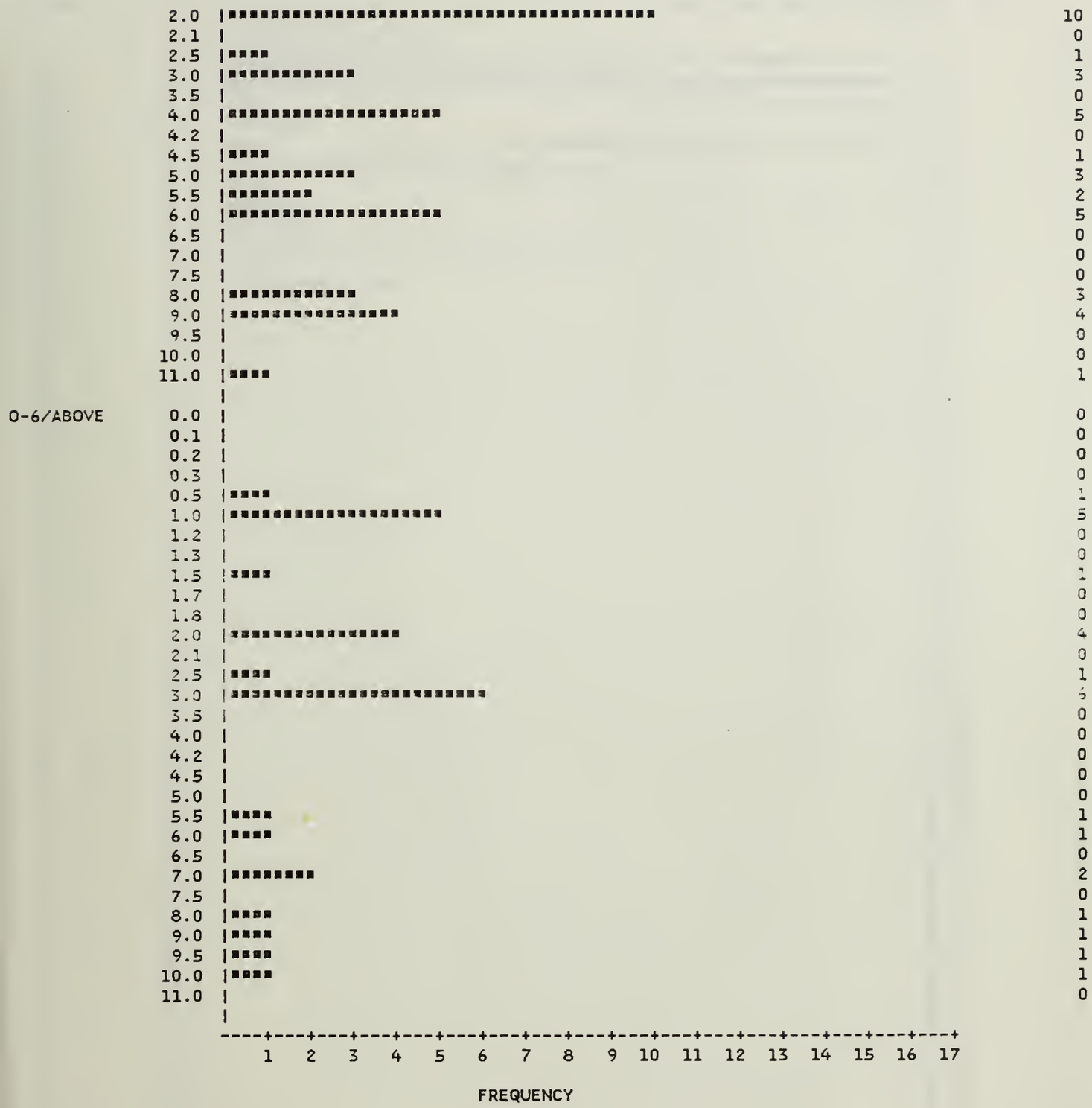
FREQ

(1) NONE (3) 6 TO 18 YEARS
(2) 19 YEARS OR MORE (4) 5 YEARS OR LESS



Q44	YEARS IN GRADE		FREQ
O-1	0.0		0
	0.1		0
	0.2		0
	0.3		0
	0.5	■■■■■■■■■■■■■■■■■■■■	5
	1.0	■■■■■■■■■■■■■■■■■■■


0.5 | 0
1.0 | 14
1.2 | 0
1.3 | 1
1.5 | 4
1.7 | 0
1.8 | 0
2.0 | 10
2.1 | 0
2.5 | 2
3.0 | 6
3.5 | 3
4.0 | 5
4.2 | 0
4.5 | 2
5.0 | 5
5.5 | 3
6.0 | 11
6.5 | 2
7.0 | 2
7.5 | 1
8.0 | 5
9.0 | 1
9.5 | 0
10.0 | 0
11.0 | 0
0-4
0.0 | 0
0.1 | 1
0.2 | 1
0.3 | 0
0.5 | 1
1.0 | 10
1.2 | 1
1.3 | 0
1.5 | 0
1.7 | 0
1.8 | 0
2.0 | 10
2.1 | 1
2.5 | 2
3.0 | 6
3.5 | 1
4.0 | 5
4.2 | 1
4.5 | 1
5.0 | 2
5.5 | 0
6.0 | 6
6.5 | 0
7.0 | 8
7.5 | 0
8.0 | 3
9.0 | 7
9.5 | 0
10.0 | 2
11.0 | 0
0-5
0.0 | 1
0.1 | 0
0.2 | 0
0.3 | 0
0.5 | 1
1.0 | 7
1.2 | 0
1.3 | 0
1.5 | 1
1.7 | 0
1.8 | 0


2.0 10
2.1 0
2.5 1
3.0 3
3.5 0
4.0 5
4.2 0
4.5 1
5.0 3
5.5 2
6.0 5
6.5 0
7.0 0
7.5 0
8.0 3
9.0 4
9.5 0
10.0 0
11.0 1
0-6/ABOVE
0.0 0
0.1 0
0.2 0
0.3 0
0.5 1
1.0 5
1.2 0
1.3 0
1.5 1
1.7 0
1.8 0
2.0 4
2.1 0
2.5 1
3.0 6
3.5 0
4.0 0
4.2 0
4.5 0
5.0 0
5.5 1
6.0 1
6.5 0
7.0 2
7.5 0
8.0 1
9.0 1
9.5 1
10.0 1
11.0 0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
FREQUENCY

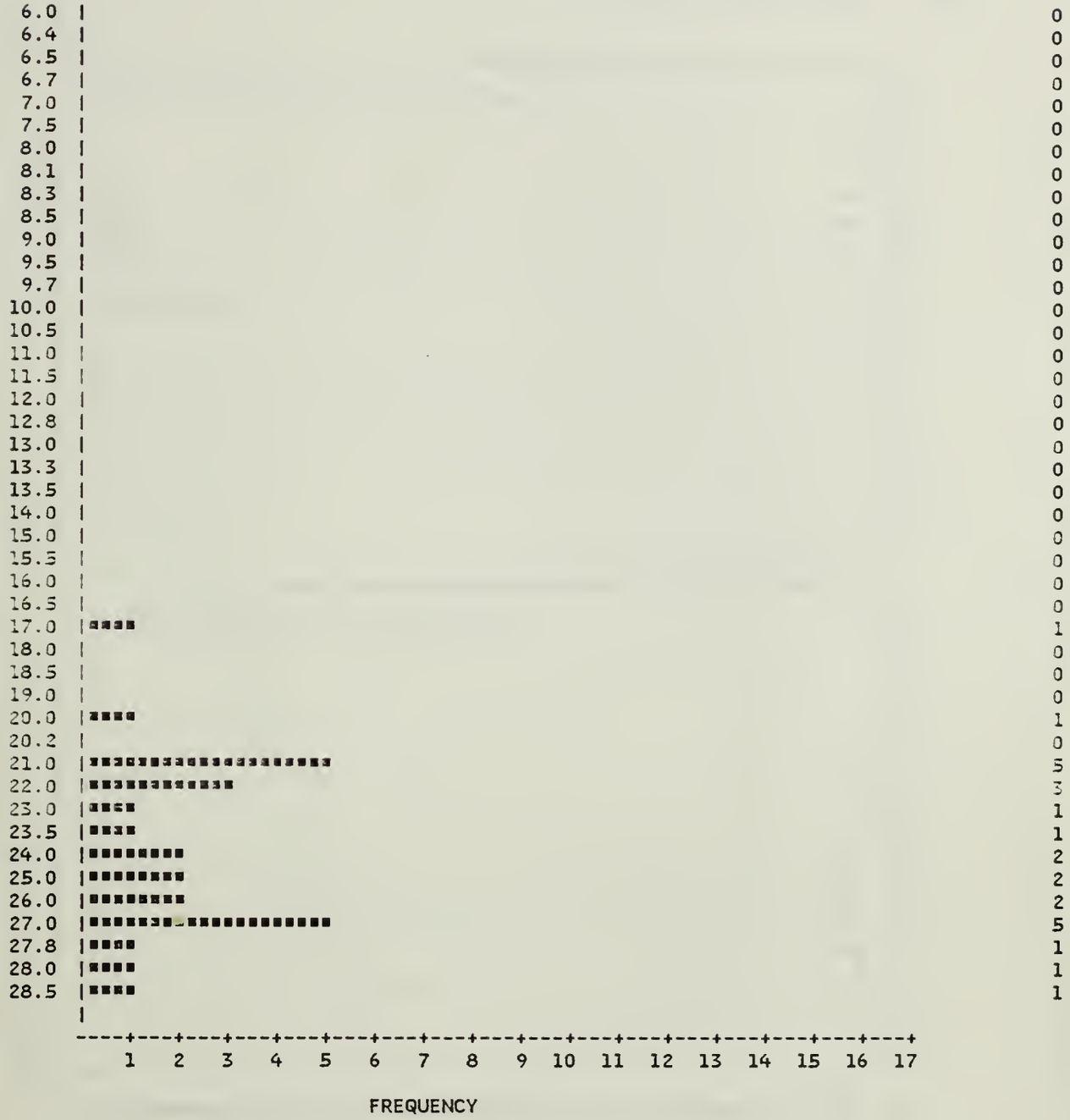
Q45	YEARS OF SERVICE NOAA CORPS		FREQ
		|	
O-1	0.5	|■■■■■■■■■■■■■■■■■■■■	5
	1.0	|■■■■■■■■■■■■■■■■■■■

	1.8	0
	2.0	3
	2.5	5
	3.0	13
	3.3	1
	3.5	1
	3.7	2
	3.8	1
	4.0	9
	4.3	1
	4.5	2
	4.8	2
	5.0	9
	5.5	1
	6.0	4
	6.4	0
	6.5	0
	6.7	1
	7.0	0
	7.5	0
	8.0	0
	8.1	0
	8.3	0
	8.5	0
	9.0	0
	9.5	0
	9.7	0
	10.0	0
	10.5	0
	11.0	0
	11.5	0
	12.0	0
	12.8	0
	13.0	0
	13.3	0
	13.5	0
	14.0	0
	15.0	0
	15.5	0
	16.0	0
	16.5	0
	17.0	0
	18.0	0
	18.5	0
	19.0	0
	20.0	0
	20.2	0
	21.0	0
	22.0	0
	23.0	0
	23.5	0
	24.0	0
	25.0	0
	26.0	0
	27.0	0
	27.8	0
	28.0	0
	28.5	0
0-3	0.5	0
	1.0	3
	1.5	0
	1.8	1
	2.0	0
	2.5	0
	3.0	1
	3.3	0
	3.5	0
	3.7	0

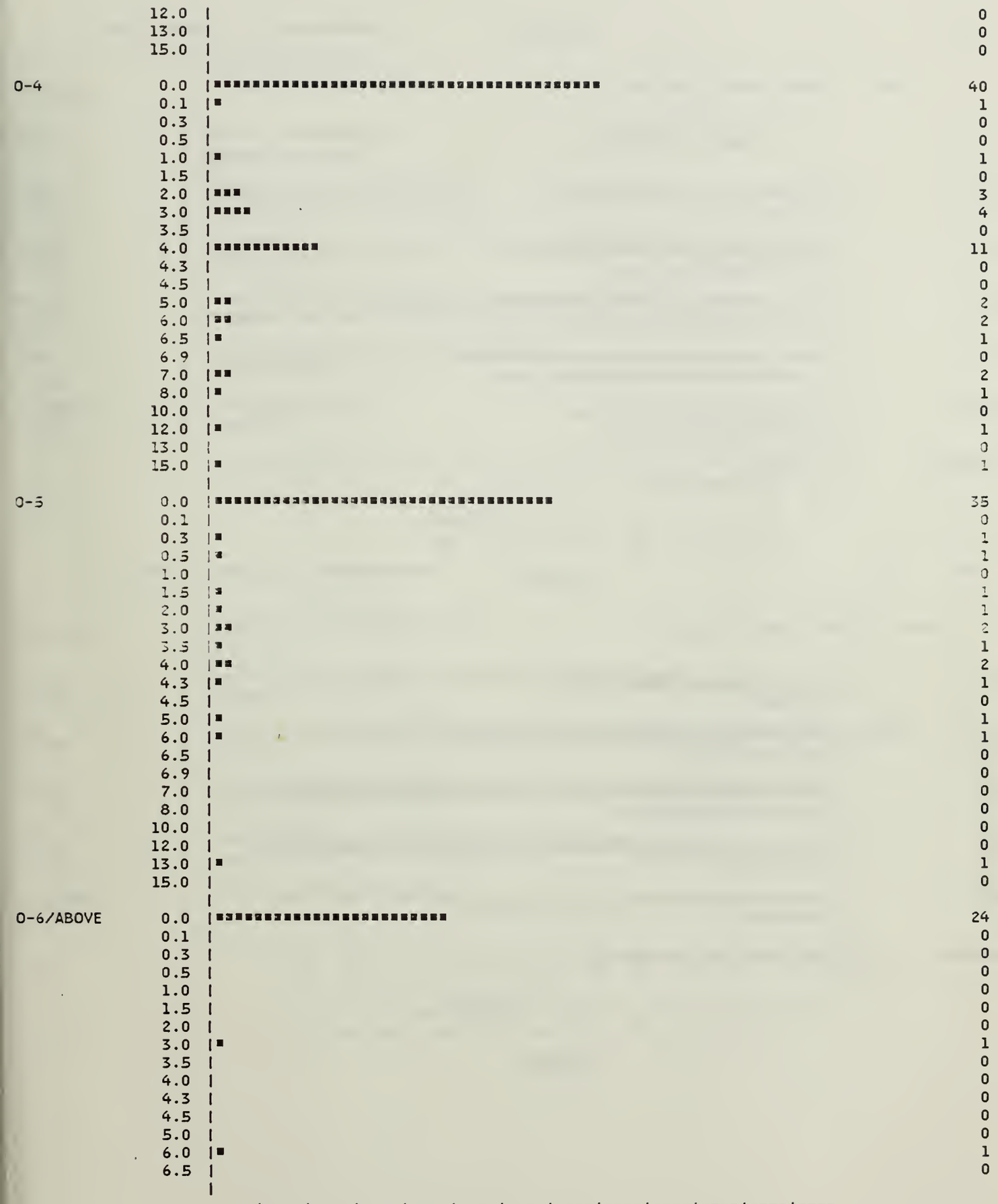
	3.8	0
	4.0	2
	4.3	0
	4.5	0
	4.8	0
	5.0	0
	5.5	1
	6.0	6
	6.4	1
	6.5	3
	6.7	0
	7.0	13
	7.5	2
	8.0	7
	8.1	1
	8.3	1
	8.5	1
	9.0	4
	9.5	3
	9.7	1
	10.0	10
	10.5	1
	11.0	13
	11.5	3
	12.0	1
	12.8	0
	13.0	0
	13.3	0
	13.5	0
	14.0	0
	15.0	0
	15.3	0
	16.0	0
	16.5	0
	17.0	0
	18.0	0
	18.3	0
	19.0	0
	20.0	0
	20.2	0
	21.0	0
	22.0	0
	23.0	0
	23.5	0
	24.0	0
	25.0	0
	26.0	0
	27.0	0
	27.8	0
	28.0	0
	28.5	0
0-4	0.5	0
	1.0	0
	1.5	0
	1.8	0
	2.0	0
	2.5	0
	3.0	0

Q45	YEARS OF SERVICE NOAA CORPS	FREQ
	|	
	3.3 |	0
	3.5 |	0
	3.7 |	0
	3.8 |	0
	4.0 |	0
	4.3 |	0
	4.5 |	0
	4.8 |	0
	5.0 |	0
	5.5 |	0
	6.0 |	0
	6.4 |	0
	6.5 |	0
	6.7 |	0
	7.0 |********	2
	7.5 |	0
	8.0 |	0
	8.1 |	0
	8.3 |	0
	8.5 |	0
	9.0 |	0
	9.5 |****	1
	9.7 |	0
	10.0 |****************	4
	10.5 |****	1
	11.0 |********	2
	11.5 |********	2
	12.0 |**********	15
	12.8 |****	1
	13.0 |**********	16
	13.3 |****	1
	13.5 |****	1
	14.0 |**********	15
	15.0 |********************	7
	15.5 |	0
	16.0 |	0
	16.5 |	0
	17.0 |	0
	18.0 |	0
	18.5 |	0
	19.0 |	0
	20.0 |	0
	20.2 |	0
	21.0 |	0
	22.0 |	0
	23.0 |	0
	23.5 |	0
	24.0 |	0
	25.0 |	0
	26.0 |	0
	27.0 |	0
	27.8 |	0
	28.0 |	0
	28.5 |	0
	|	
O-5	0.5 |	0
	1.0 |	0
	1.5 |	0
	1.8 |	0
	2.0 |	0
	2.5 |	0
	3.0 |	0
	3.3 |	0
	3.5 |	0
	3.7 |	0

	3.8		0
	4.0		0
	4.3		0
	4.5		0
	4.8		0
	5.0		0
	5.5		0
	6.0		0
	6.4		0
	6.5		0
	6.7		0
	7.0		0
	7.5		0
	8.0		0
	8.1		0
	8.3		0
	8.5		0
	9.0		0
	9.5		0
	9.7		0
	10.0	■■■■	1
	10.5		0
	11.0	■■■■	1
	11.5		0
	12.0		0
	12.8		0
	13.0	■■■■	1
	13.3		0
	13.5		0
	14.0	■■■■■■■■	2
	15.0	■■■■■■■■■■■■■■■■	4
	15.5	■■■■■■■■	2
	16.0	■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■	10
	16.5	■■■■	1
	17.0	■■■■■■■■■■■■■■■■■■■


6.0 0
6.4 0
6.5 0
6.7 0
7.0 0
7.5 0
8.0 0
8.1 0
8.3 0
8.5 0
9.0 0
9.5 0
9.7 0
10.0 0
10.5 0
11.0 0
11.5 0
12.0 0
12.8 0
13.0 0
13.3 0
13.5 0
14.0 0
15.0 0
15.5 0
16.0 0
16.5 0
17.0 1
18.0 0
18.5 0
19.0 0
20.0 1
20.2 0
21.0 5
22.0 3
23.0 1
23.5 1
24.0 2
25.0 2
26.0 2
27.0 5
27.8 1
28.0 1
28.5 1
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
FREQUENCY

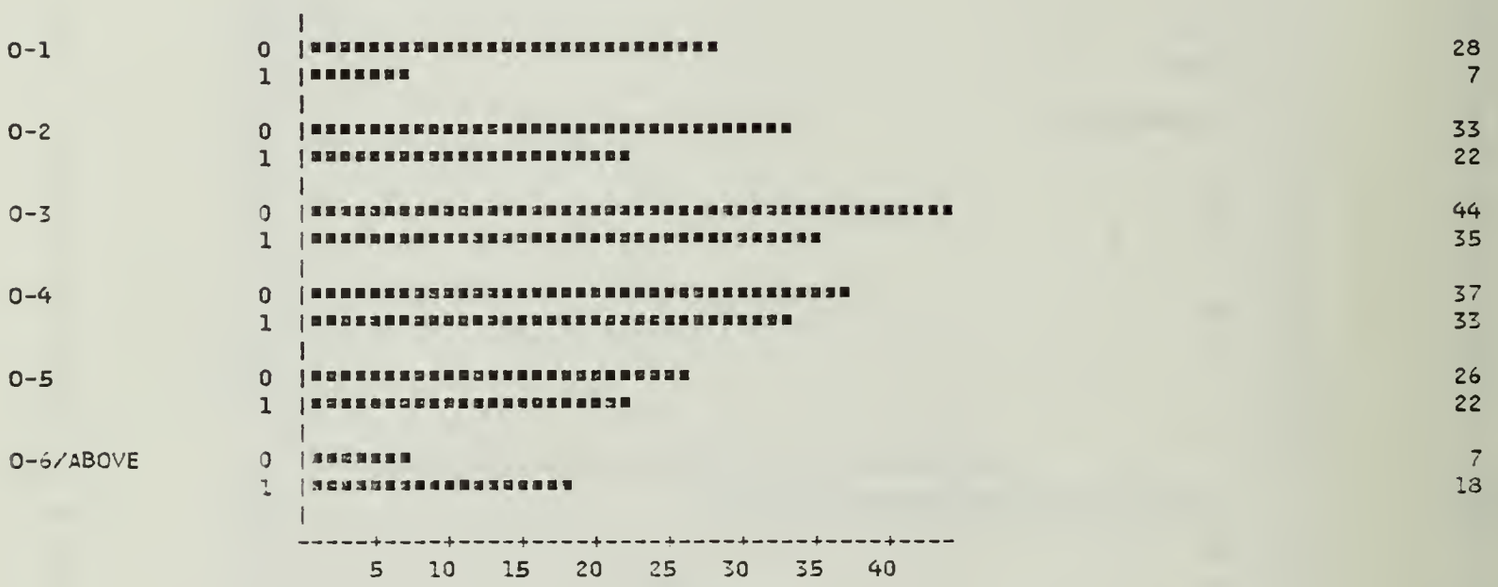
	Q46 YEARS OF SERVICE OTHER	FREQ
O-1	0.0 |■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■■	31
	0.1 |	0
	0.3 |	0
	0.5 |■	1
	1.0 |	0
	1.5 |	0
	2.0 |■	1
	3.0 |■	1
	3.5 |	0
	4.0 |	0
	4.3 |	0
	4.5 |■	1
	5.0 |	0
	6.0 |	0
	6.5 |	0
	6.9 |	0
	7.0 |	0
	8.0 |	0
	10.0 |	0
	12.0 |	0
	13.0 |	0
	15.0 |	0
O-2	0.0 |■■■■■■■■■■■■■■■■■■■


12.0 0
13.0 0
15.0 0
0-4 0.0 40
0.1 1
0.3 0
0.5 0
1.0 1
1.5 0
2.0 3
3.0 4
3.5 0
4.0 11
4.3 0
4.5 0
5.0 2
6.0 2
6.5 1
6.9 0
7.0 2
8.0 1
10.0 0
12.0 1
13.0 0
15.0 1
0-5 0.0 35
0.1 0
0.3 1
0.5 1
1.0 0
1.5 1
2.0 1
3.0 2
3.5 1
4.0 2
4.3 1
4.5 0
5.0 1
6.0 1
6.5 0
6.9 0
7.0 0
8.0 0
10.0 0
12.0 0
13.0 1
15.0 0
0-6/ABOVE 0.0 24
0.1 0
0.3 0
0.5 0
1.0 0
1.5 0
2.0 0
3.0 1
3.5 0
4.0 0
4.3 0
4.5 0
5.0 0
6.0 1
6.5 0
5 10 15 20 25 30 35 40 45 50 55 60

FREQUENCY

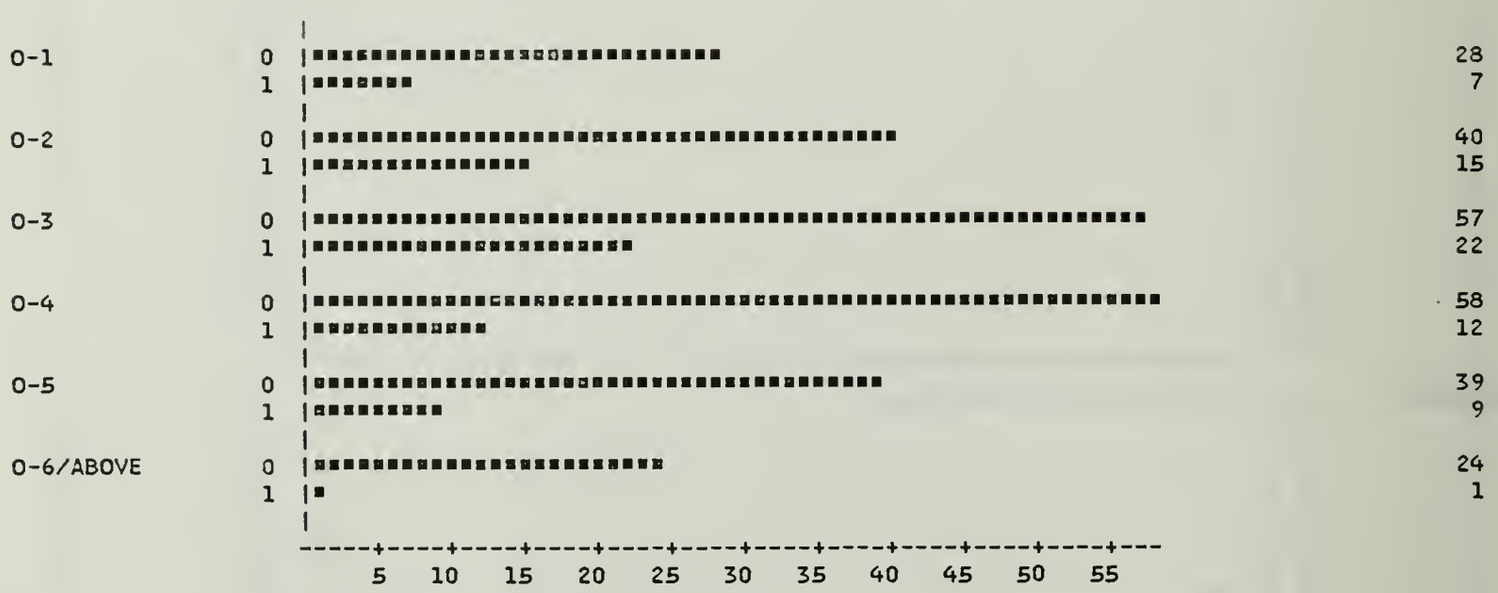
Q47A CAREER AREA: CHARTING FREQ

0 = NO ORIENTATION
1 = CAREER ORIENTATION



FREQUENCY

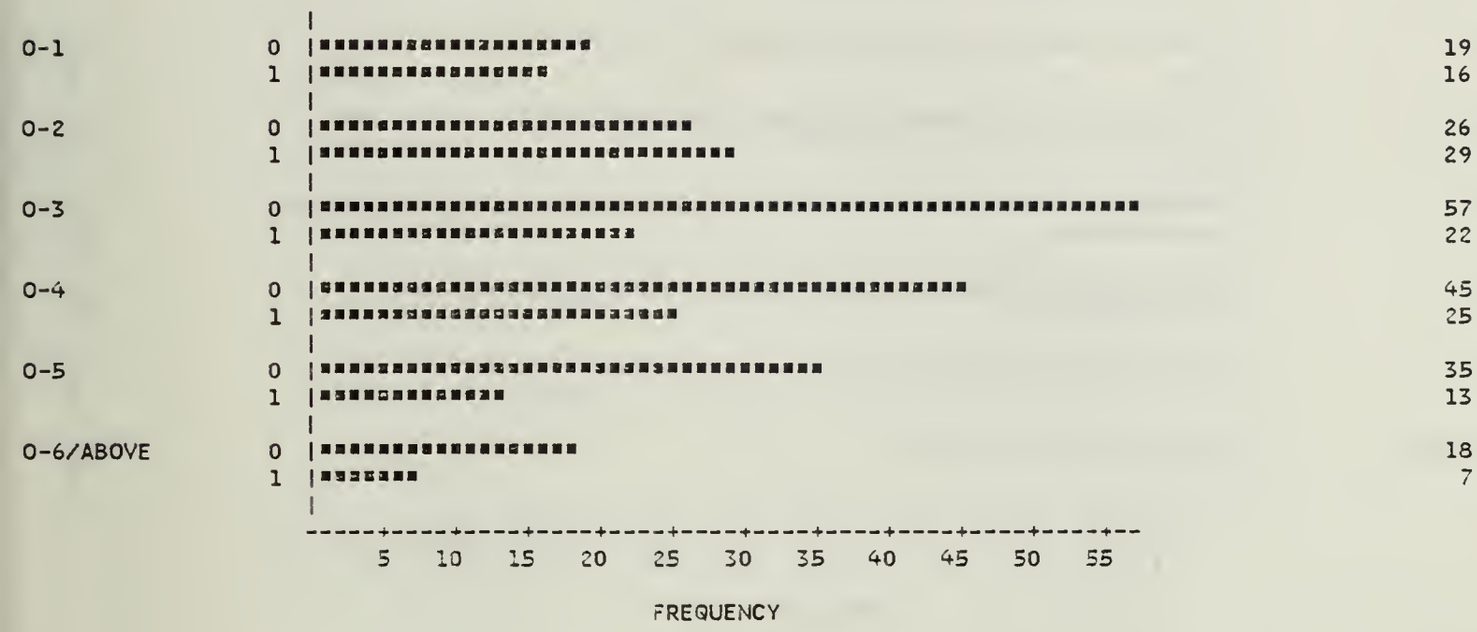
Q47B CAREER AREA: FISHERIES FREQ



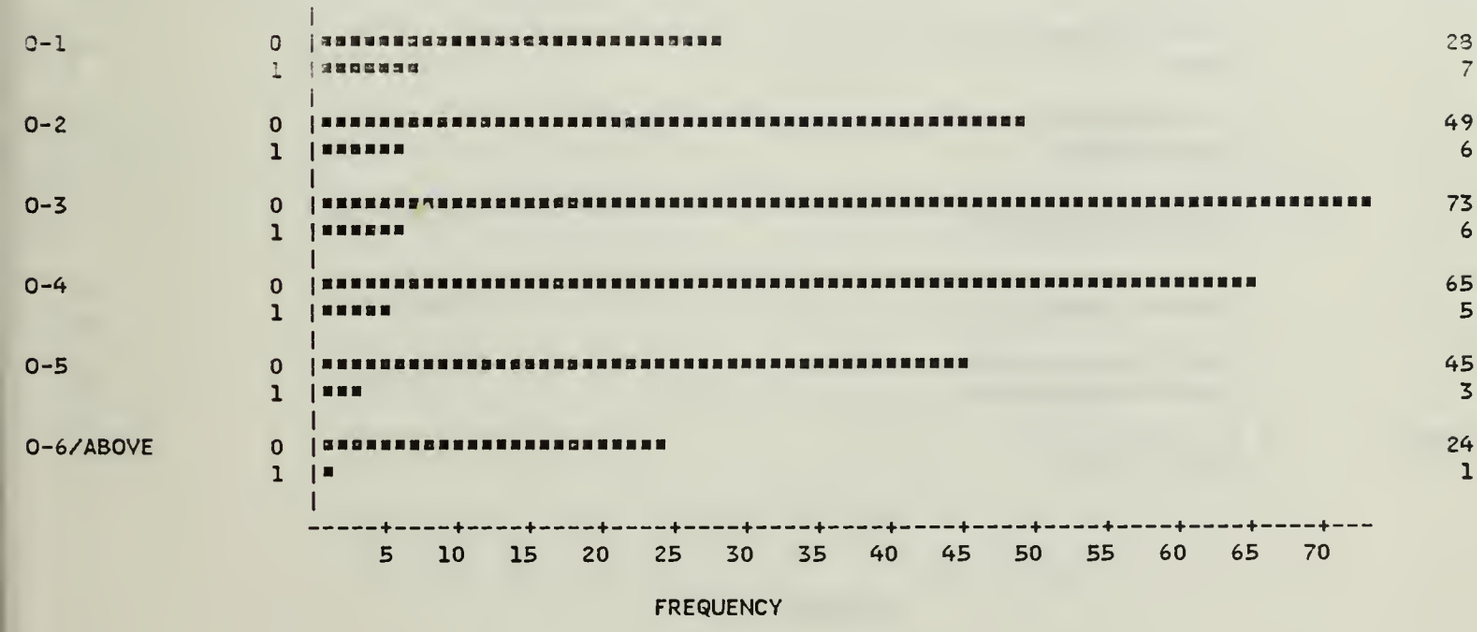
FREQUENCY

Q47C CAREER AREA:OCEANOGRAPHY FREQ

0 = NO ORIENTATION
1 = CAREER ORIENTATION

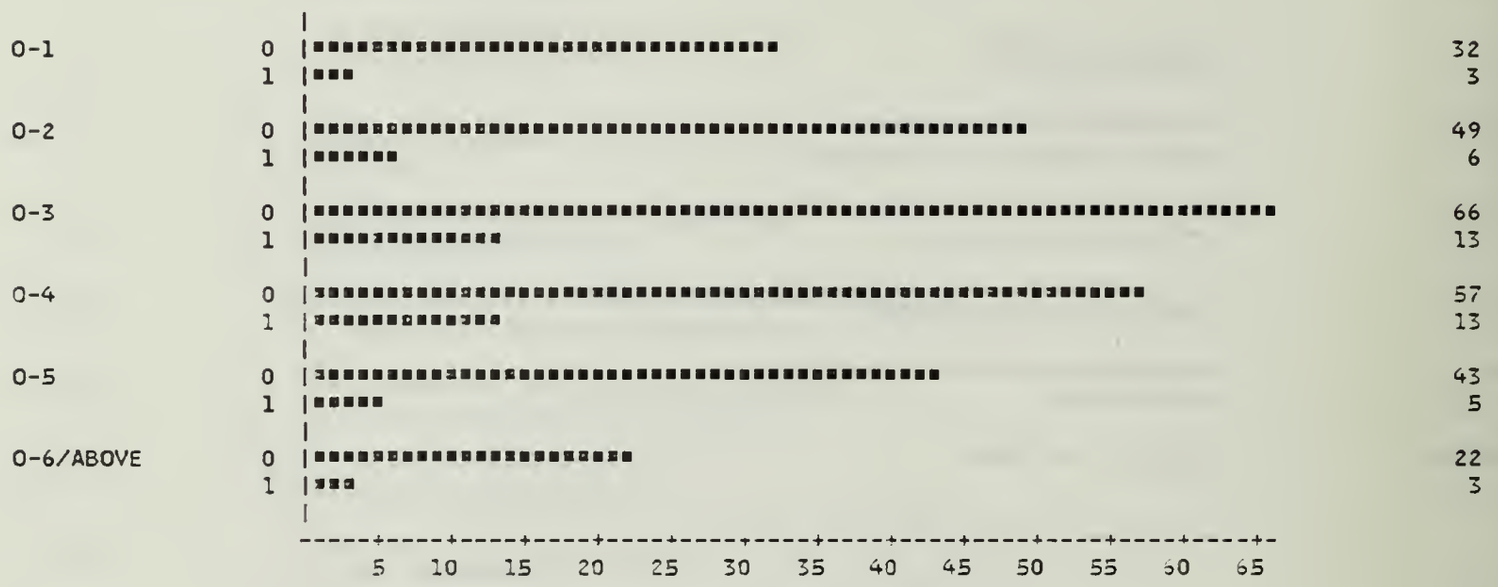


Q47D CAREER AREA: METEOROLOGY FREQ

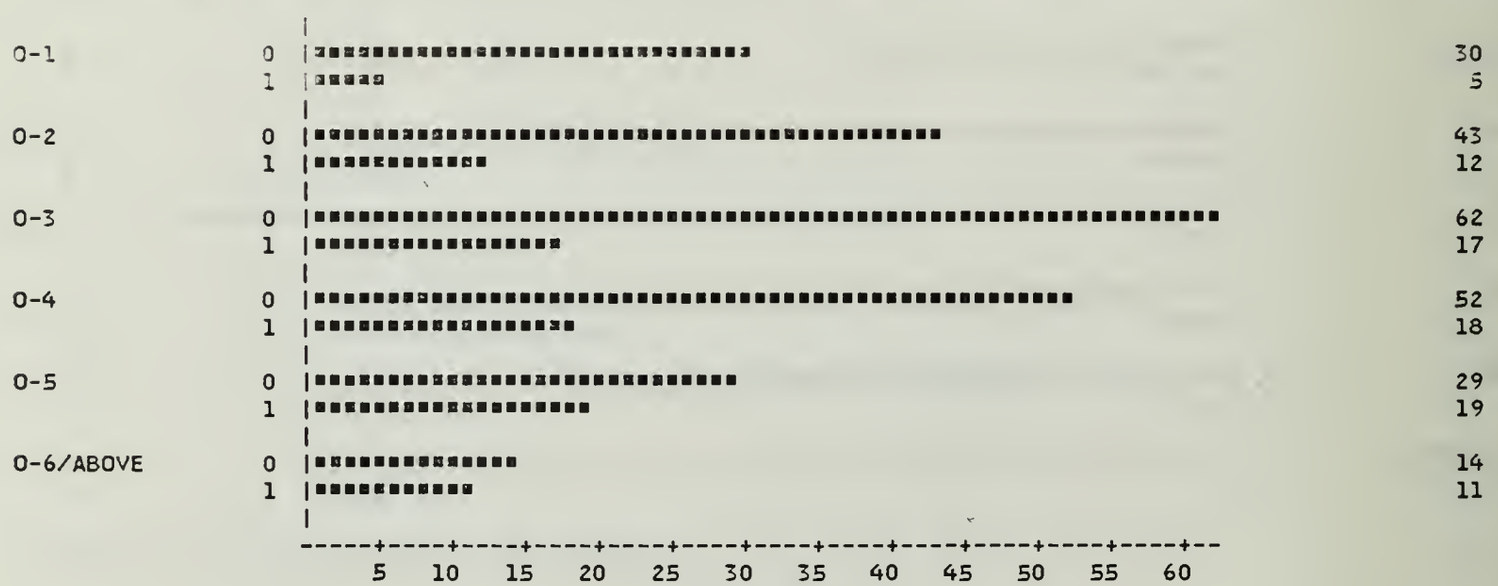


Q47E CAREER AREA: AVIATION FREQ

0 = NO ORIENTATION
1 = CAREER ORIENTATION

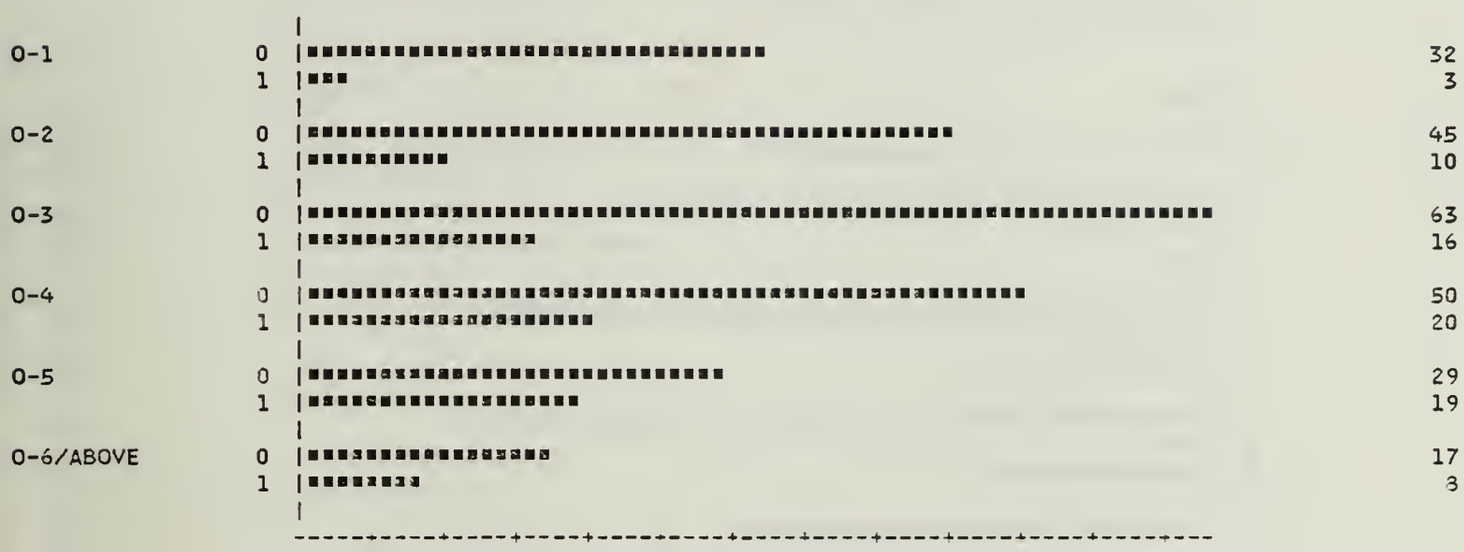


Q47F CAREER AREA: MARINE OPS. FREQ

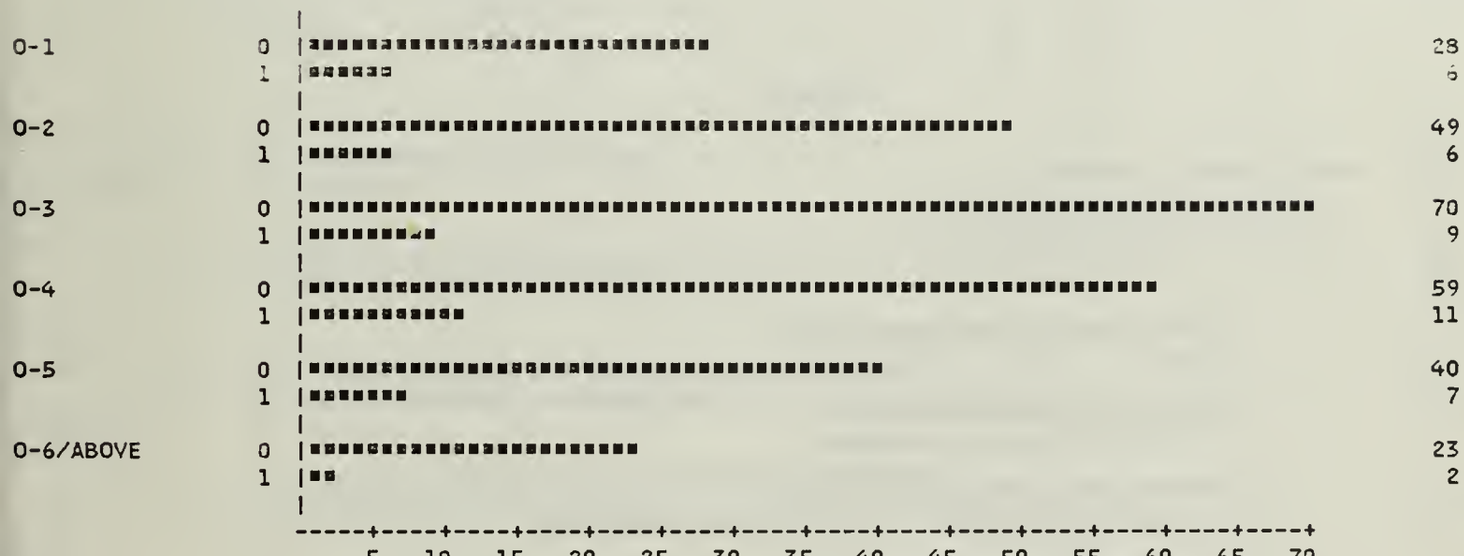


Q47G CAREER AREA: ADMINISTRATION FREQ

0 = NO ORIENTATION
1 = CAREER ORIENTATION

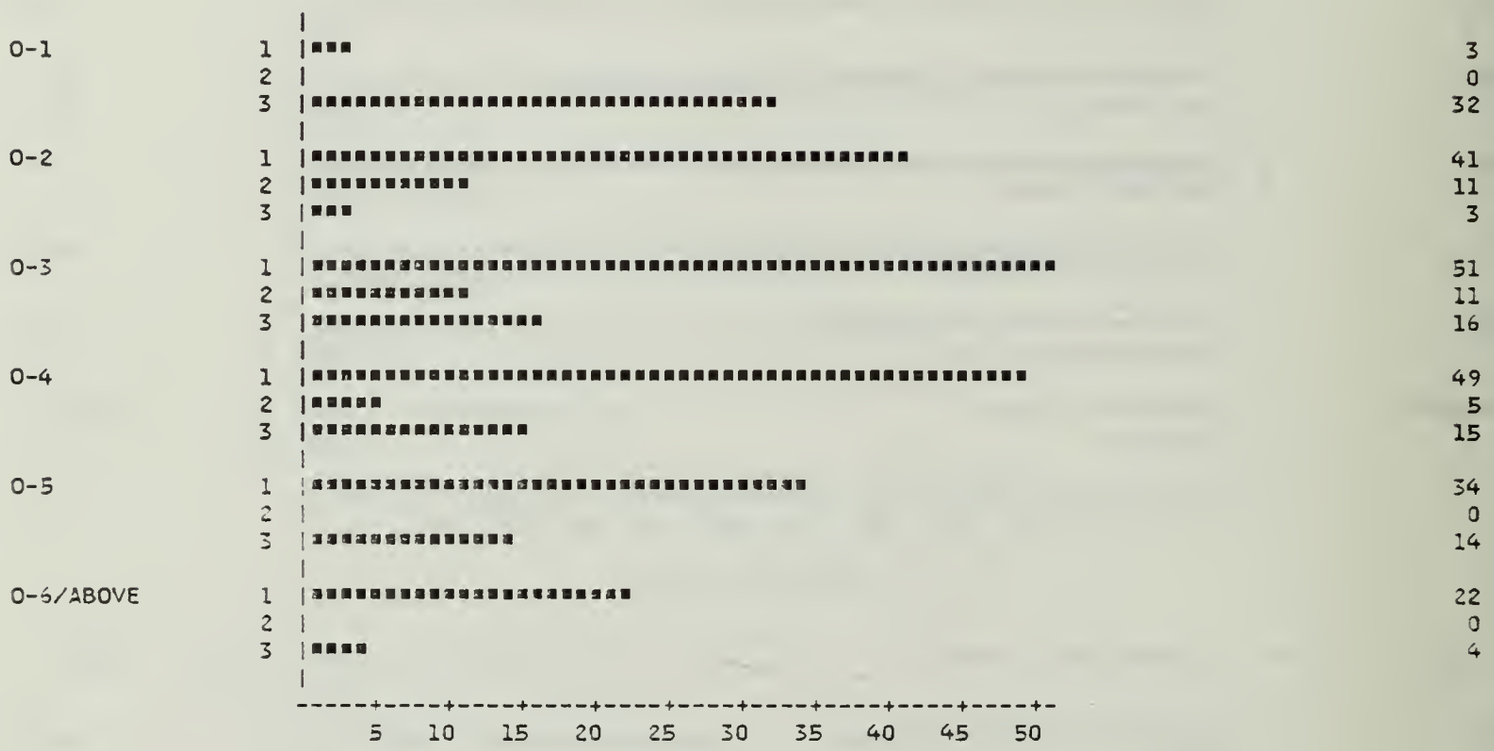


Q47H CAREER AREA:OTHER FREQ



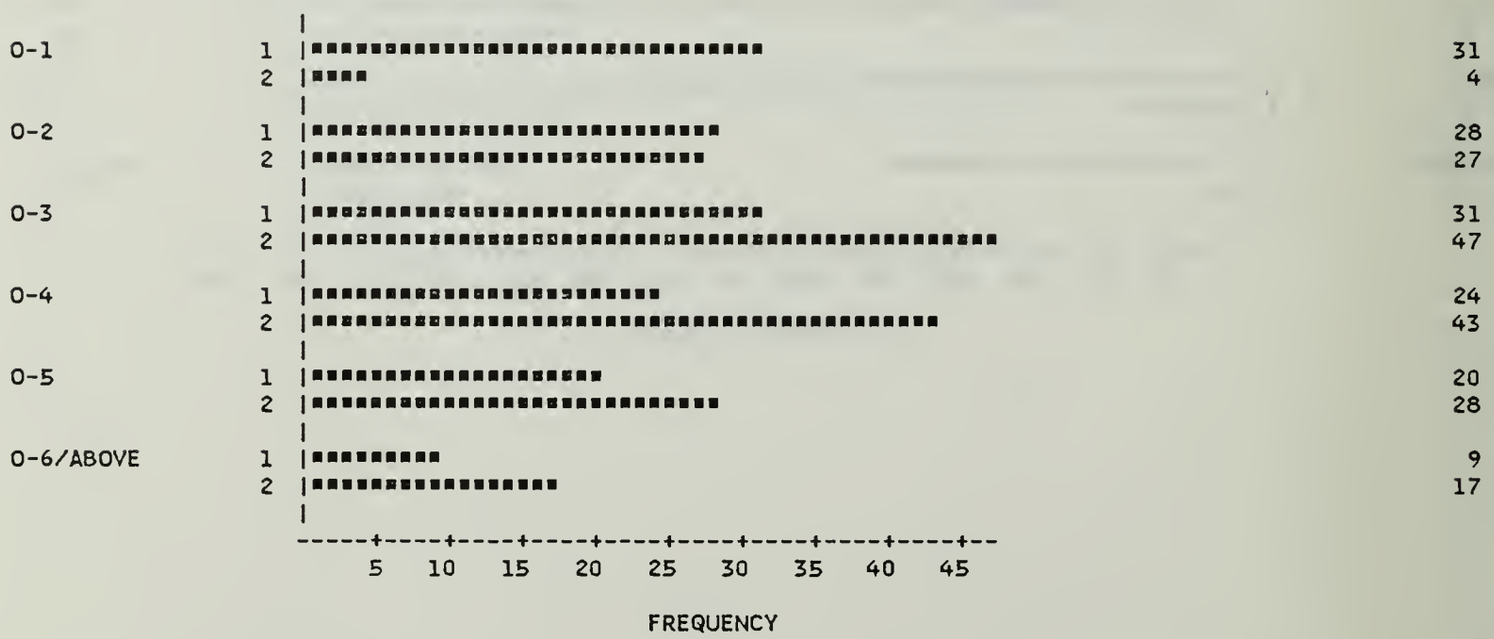
Q48 CURRENT ASSIGNMENT FREQ

(1) PERMANENT SEA DUTY
(2) TEMPORARY SEA OR SHORE (MOBILE)
(3) PERMANENT SHORE



Q49 CURRENT LOCATION FREQ

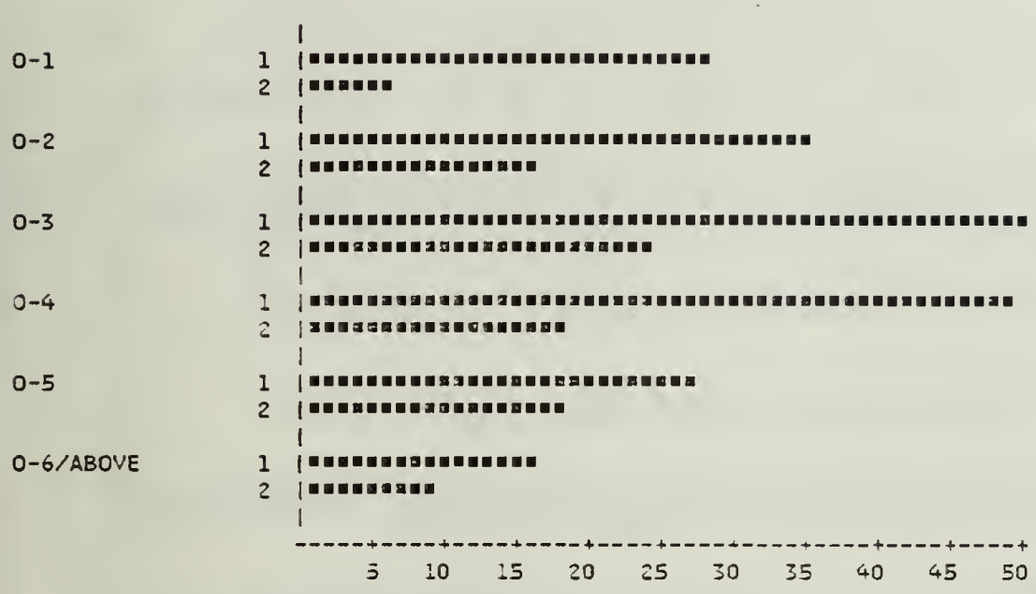
(1) EAST OF MISSISSIPPI RIVER
(2) WEST OF MISSISSIPPI RIVER



Q50 LOCATION PREFERENCE - SEA

FREQ

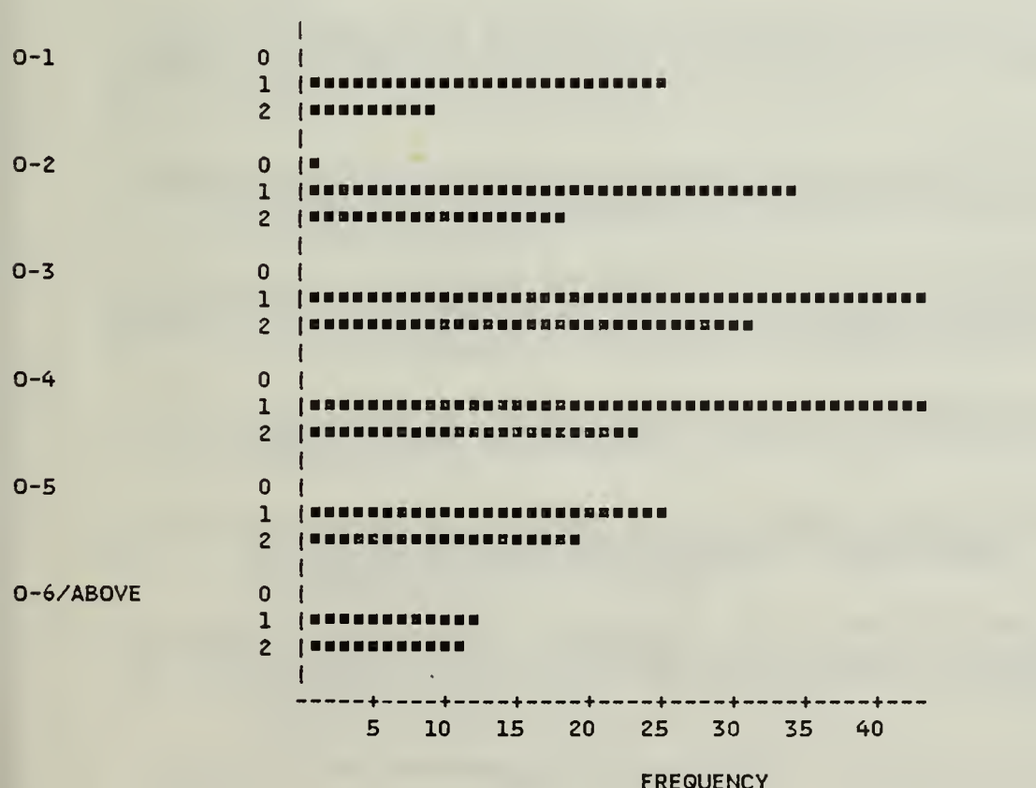
(1) WEST
(2) EAST



Q51 LOCATION PREFERENCE - LAND

FREQ

(1) WEST
(2) EAST



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